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ARTICLE XIX.

MINOR MENTAL MALADIES.

By ANDREW MCFARLAND, M.D.

Read before the Illinois State Medical Society, May 6, and the American Association of Superintendents of American Institutions for the Insane, May 19, 1863.

It is a constantly recurring question, how far the terms *healthy* and *sane* should be regarded as the expressions of a strictly positive idea.

The solecism that a person is partially sick, is seldom heard; but the term, partially insane, is so common as to pass without a question. The boundary between physical health and disease is supposed to be well defined. The determinate point at which a person shall be called physically *sick* has a certain precision about it, it being a point which the person affected can define for himself. All there is arbitrary about it, arises from peculiarities of mental constitution, which may lead one individual to fix the period at an earlier date than that chosen by another. In all mental affections, however, the opinions of those who pass judgment upon themselves are regarded more in the light of *ex parte* proceedings, requiring confirmation by the judgment of others.

The "thin partitions," recognized in Dryden's couplet, fade away almost entirely in regard to a great number of cases of

mental impairment, creating a border territory, on the domain of which reason or madness may be supposed to hold sway, much according to the caprice in opinion of whoever may, for the time being, pass judgment thereupon.

Perpetual embarrassments and social disturbances are taking place from the sayings and doings of individuals, who, while occupying the wrong side of the border line, claim the prerogatives exclusively appertaining to the occupants of the other, neither themselves nor those affected by their acts perceiving the wrong stand-point from which such acts have their issue. Probably, physicians, more frequently than any other class, are subject to such embarrassments, and it will be the present object to pass in review some of those abnormal mental states which are apt to impose upon the practitioner, and sometimes, I apprehend, seriously warp his judgment.

It is presumed that, in the all-important matter of health, the statement of the patient to his physician will be as strictly truthful as language can make it. The physician always having this in mind, becomes, at the bedside of his patient, the most credulous of men, usually accepting, without question, all statements of facts on matters not otherwise capable of demonstration. It is only where the statement is most strikingly at variance with probability that his suspicions are ever aroused, and then even so tardily and feebly that he may be the victim of most egregious impositions for a long period. In his department, as in all others, the most successful imposter is the one who is himself deceived, and the earnestness, profound sincerity, and ceaseless importunity with which some self-deception may be forced on the unsuspecting physician, will command for a palpable error all the attention due to matters of highest earthly consequence.

Sources of error more trifling than any which proceed from a patient's imagination, may warp the judgment of the unthinking physician. Even the temperament of the messenger, whose only office is to convey the summons of the sick man to the doctor, may be potent enough to sway the latter into a prejudgment of the case in matters of diagnosis and treatment. How

many physicians are there who could be aroused from deep slumber and hurried to the bed of a sick man by some such Mercurius of a messenger, as we have seen, without being prepared with a prognosis, diagnosis, and treatment, hard to be abandoned, which had been colored, at least, by the glowing imagination of such an insignificant functionary?

The mere idea of being diseased, as it impresses the mind of one to whom health is the natural state, is productive of an abnormal mental condition. The stays and supports which the mind receives in the conception of a variety of ideas, are missed when one engrossing idea occupies the attention. The estimate which the physician has gathered of his patient while in a state of health, fails him when the individual assumes the relation of a patient. Timidity, want of confidence, and even incivility are found to have taken the place of the manliness in which the same individual was before supposed to abound.

There are circumstances attending the mere occupancy of a sick bed, calculated, irrespective of the form of the disease, to place one in a factitious state of mind, which the physician will do well to consider. Even the disrobing and going to bed puts a person in an unnatural relation to the erect and active world about him. A man can not even exchange his roundabout and boots for a dressing-gown and slippers without being made, in feeling, at least, somewhat effeminate by the act, and what an abatement in his manliness is there when he is reduced,—a single garment only excepted,—to the original suit in which he made his mundane début. It was regarded as one of the clearest proofs of the regal dignity of Louis XIV. that he could dress and undress, take his physic and endure its consequences, while surrounded by his courtiers, his dignity the while suffering no disturbance. Few persons unpracticed in state craft would dare venture the experiment. Cæsar, booted and spurred, leading his victorious legions through Gaul, was a totally different man from the Cæsar who earned the contempt of Brutus by his puling conduct when he had the fever in Spain.

The recumbent position is one no more favorable to seeing objects correctly with the mental than the bodily vision. Who

that has had occasion to put to paper the ideas that thrust themselves upon the mind during the waking hours of night, has not been disappointed at the show they make when subjected to such a test? This morbid coloring of ideas, thus engendered, may be in part owing to the influence of the silence and darkness of night, though it is enough perceived in the day time to show that it is largely due to mere recumbency of position. Even to the most vigorously constituted, the bed is the habitation of fears and apprehensions, which vanish when the subject of them faces the world in the attitude of encounter.

The terms applied by different individuals to the same degree of personal suffering vary to the widest extremes; and the physician should be carefully on his guard against those whose minds conceive such a state only in the superlative degree. With some, a pain is always "terrible;" "beyond all endurance;" or, it is "torturing," "racking," "excruciating," as if the inventions of martyrdom could only supply fitting terms for its expression, while another, in defining the same amount of suffering, uses only the proper positive. The difficulty in correct diagnosis, is increased where the individual makes his act, while under observation, correspond with his language. He turns himself in bed with a groan, starts at the examining touch, catches his breath at each inspiration, distorts his countenance, or walks with his hand pressed carefully to his side.

Perhaps a more frequent form of this deception is in regard to the exercise of some physical function. Some habitually attempt to deceive in regard to the excretions, their frequency and amount, using, sometimes, the most loathsome devices to conceal the real fact. More frequently it is in regard to the amount of nutriment taken. Misrepresentations in regard to the latter fact, are frequent, beyond the idea even of the most suspicious. Multitudes of weak-minded persons seem to regard abstinence from food as something meritorious, and deceive, with regard to it, for the sake of winning the sympathy of others. The same morbid disposition will often lead patients



to falsify with regard to the operation of medicines. This is true, particularly of cathartics, and the prescriber is frequently led to increase the dose, even to an injurious amount.

Great skill is required to separate the fictitious from those real suspensions of physical functions with which mental disease is so frequently connected. The suspension of physical pain, for instance, which occurs in many cases of mental disease, is so great as to mask and conceal bodily injuries of an extreme character. The nerves of sensation seem actually paralyzed. For many years the apparent fact seemed remarkable that very few insane persons died of phthisis pulmonalis. The disuse of autopsies in insane hospitals allowed that error long currency, till it was shown such by the investigations of a gentleman\* connected with an institution where that practice was maintained. From his investigations it is shown that pulmonary disease exists quite as much among the insane as among others,—the cough, pains in the chest, &c., being absent merely through a blunted condition of the nerves of sensation. For the same reason, fractures and other serious injuries received by insane persons, often escape detection till some time after they are received into institutions for the treatment of mental disease.

The history of cases of insanity presented for treatment often reminds us how frequently the disease has commenced with some delusion upon the subject of health; and the time spent in the treatment of a disease wholly imaginary, and the number of practitioners who will be successfully deceived by the same case, is matter of continual surprise. The forms which such imaginary diseases assume are truly Protean, and practitioners are much to blame for their readiness to give a name for the thousand shifting and transient sensations to which all persons of ill-regulated sensibilities are more or less subject.

The unthinking practitioner who gives a name to an array of sensations which may be detailed to him, merely for the sake of being rid of a troublesome consulter, and without hav-

\* Dr. Joseph Workman, Toronto, Canada.

ing some grounds for such a diagnosis though a satisfying examination, often does an injury which no time can remedy. As an opinion in favor of a delusion will have more weight than many against it, he who, by a professional opinion, gives a local habitation and a name to what was before an airy nothing of the imagination, does a fellow-being a lasting, and may be, fatal injury.

An individual whose vagaries of sensation have thus become magnified into a disease, becomes one of the most miserable of all the mild class of lunatics, as much from the new name which his fancied disease is perpetually getting, or the new disease which each successive prescriber adds to the already appalling host, as from his actual sufferings. His disease is dyspepsia, heart disease, liver complaint, or marasmus, as the case may be, and thus the poor victim finds himself running down a page of nosological horrors, the tendency of which is by no means to lessen the speed by which he is hastening to the inevitable conclusion. For years he will be passing from one physician to another, till his faith in the faculty is exhausted; then through the various forms and grades of empiricism, till every function of his body is completely vitiated by such an unnatural experience. On reaching the lunatic asylum, which is the usual goal of such a course, we find, in the verdict of the jury which commits him, the same stereotyped cause standing forth, like the skull and crossbones of old time tombstones, to wit: "ill health."

Young and middle-aged men are, probably, most frequently the subjects of this mental disease, and no examination is complete which does not include a careful scrutiny as to the existence of vicious habits of a solitary nature, when such cases present themselves. And here let me caution as to the general unreliability of all statements which such subjects may make as it regards this conclusive fact. No exterior of respectability, no professions of better things, no previous character for veracity and candor seem proof against the spirit of mendacity which this detestable practice appears to create. It is only when the individual becomes thoroughly alarmed that the truth comes out of him.

Somewhat nearly allied to the last, though less frequently resulting in positive insanity, is that perpetually existing and utterly incurable malady, chiefly occurring among females, and affording to such practitioners as give it their encouragement, no small amount of their employment. It is a sort of *medico-mania*, an unquenchable desire to make of themselves a constant thoroughfare for drugs. Some real illness may have at first called the habit into existence, though it requires to bring the case to perfection, a constitutional predisposition to it. It is so frequently found prevalent in particular families as to support the idea that, like graver mental maladies, it is a matter of inheritance. With such persons the medical idea seems to fill the mind. The chronicles of neighboring sickness, past and present, and the sayings and doings of some favorite practitioner, are the principal topics of their conversation, with as full a narration of their own diseases added as the time and stomach of any listener can be found to bear. To get up about themselves the atmosphere of the sick-room seems to be their highest delight, and the pleasurable eras in their lives are when they have set on foot the liveliest anxieties, and produced the widest outflow of physic and sympathy. Their imbibition of medicine really never ceases, and, as the articles which they most affect are of the class of diffusible stimulants, they at last become as necessary as the dram of the inebriate. Their diseases are as far from any nosological distinction as those of the last named class. They are really in a great degree imaginary, and differ little from other mental infirmities.

In the class alluded to before the last, should also have been included cases that for a long time deceive, which show themselves by a disposition to go to bed, with little actual complaint of illness, and become fixed in the habit sometimes for long periods. Perhaps, it is more frequently an adhesion to the bed after some actual disease has run its course. This form may appear in males or females alike; perhaps, more frequently in the latter, and, when found in the former, generally, I apprehend, connected with indulgence in secret vice. So averse is the individual sometimes to being seen, that physicians, and

even near neighbors, are unaware, perhaps for years, as I have known, that the missing person is not away from home. That this is a distinct form of insanity is proven by its occurrence in families, other members of which have shown insanity in other forms, and also by its frequently being found as the introduction to more manifest insanity.

The extent to which such persons will sometimes impose their imaginings upon others as realities, is one of the curiosities of human experience. The patient martyrdom of the sympathizing mother, regarding it as her pious duty to forego every earthly pleasure in order to confine herself to the bedside of a daughter thus afflicted, whose condition constantly becomes more deplorable by witnessing this very self-devotion on the part of the parent, is a truly affecting instance of a double delusion, in which it is difficult to say which case is the more pitiable.

We leave out of consideration the whole class of *quasi* mental disorders that show themselves in connection with hysteria, though they might form an interesting chapter in this paper, and pass to notice another peculiar malady of the mind that occurs as a sequel to the puerperal state.

Well-marked puerperal insanity is a disease peculiarly rife in this section of the country, to judge from an experience enabling a comparison with widely different localities. By far the most frequent of all the forms of this disease, is the chronic and hardly recognized one, which is found treated by no author, the distinguishing feature of which is a change in the disposition of the person affected, especially in whatever concerns the social relations, the domestic affections, and the moral tendencies. In the lighter form of this disease, those who observe it are perplexed at the phenomena which it presents. A lady, affected by this form of disease, is found to have suffered a remarkable change, dating from some previous confinement. Traits of character appear, hitherto unknown by those most in her intimacy. She becomes irritable, subject to causeless fits of passion, and jealous of, and estranged from those in whom she had before invested fullest confidence. Sometimes she is

merely changed in temperament, and is moody, solitary, and reserved. These symptoms have their aggravation whenever the functions of the uterine system are in action, till a regular monthly fit of spleen, or something worse, becomes habitual. With neighbors and casual visitors, no change is visible, the power of self-control remaining till long after the disease is fully established, and often no interruption of domestic tranquillity is suspected till a sudden disruption takes place.

More rarely, this form of disease is exhibited in a change of disposition as it regards moral acts. Manifestations of dishonesty, disregard of truth, or moral impurity, stand in strange contrast with all the individual's antecedents. It is among the thousand forms of this peculiar disease that those cases appear which afford the most plausible instances of what has unfortunately been styled *moral insanity*.

And here, somewhat out of its natural order in this paper, a few observations may be proper upon the much vexed question, whether there be such a diseased condition of the human economy as fitly to be styled a moral insanity. It is not merely a speculative question, as those well understand who are much conversant with courts of justice.

In treating the associated insane, one is at once struck with the vast proportion of their aberrations which bear the aspect of mere moral perversity. A disposition wantonly inclined to create the greatest amount of trouble possible to others, an apparent delight in contemplating the mischief and destruction which their own hands have wrought, a seeming absence of even a vestige of the sentiments of gratitude, affection, or of the instinct of love as found even in the lower orders of animals; in short, a general hardness of the whole moral nature seems much more to distinguish a great number of cases than any disturbance in the power of memory, perception, or judgment, or of that class of faculties, which, in their entire state, constitute what is termed reason. Indeed, in very many instances, where these latter components of an entire mind have been restored, this seemingly diseased state of the moral sentiments will remain as if it constituted the very foundation of the abnor-

mal phenomena of the case. I suspect, moreover, that the efficiency of the treatment obtained in an institution expressly for the insane, is much more shown in the removal of what may be styled the intellectual aberrations, than of the moral perversities of which we make mention. The constant observation of these facts has, probably, led some observers to conceive that a state might exist, deserving the name of an insanity, in which the mental operations, strictly considered, remained wholly unimpaired. - The admission of such a state of facts is a matter of great magnitude. There could be no limit set to its conclusions short of an embrace of a large share of what we consider the catalogue of crime. Already some pretenders to psychological science have thrown reproach upon the entire plea of insanity in criminal cases, by substituting the captivating name of moral insanity for what is nothing else but sheer villany. No instance has fallen under my observation where any man of professional standing as a psychopathist has maintained this doctrine in any court of justice,—the only place where it assumes high practical importance. Yet, to apply the term “moral” to insanity in the general, or to any of its forms, is virtually conceding a great deal too much, unless we are willing to concede a great deal more. As a mere philological matter, the word “moral” may be applied to insanity as well as the word “mental;” it is the question whether the application had better not be made, where it is required, by the religious teacher, in whose province it lies. But *our* insanity,—the insanity of the psychopathist and the physician, the insanity as treated by the great authors on the subject, and for whose cure insane asylums are founded,—has a meaning which is in part revolutionized when the adjective “moral” is made its prefix.

It is an undecided question, whether what are called the moral characteristics have some distinct existence, and can be separately considered and treated of, or whether they are the fruit, so to speak, of certain mental processes. Nothing would be gained by an attempt to argue a point of such nicety, and where so little of a conclusion could ever be reached, and the better way will be to inquire whether a case answering our idea

of the disease is ever seen. We cannot call anything moral insanity, except an impulse to do wrong or criminal acts, so uncontrollable by the processes of reason,—themselves being unimpaired,—as to amount to a disease. Any appreciable disturbance of mental integrity of course puts the case in another category.

To show how rare such a condition must be, I have carefully reviewed about twenty-four hundred cases of insanity treated, and am unable to recall a single case possessing even the general features of the ideal which the mind conceives as the disease in question. Dr. WORKMAN, the Superintendent of the Provincial Lunatic Asylum, Toronto, C. W., cites a case in the April number of the *American Journal of Insanity*, as being the first case of the kind found in two thousand cases treated. It is evident, in the narration of this case, that the author of the article describing it has some misgivings as to its nature; and a careful reading of its description will lead many others to the belief that Solomon's remedy for moral obliquities would have been, in this case, the suitable one. Now, here we have one case cited in an aggregate of forty-four hundred, and that a doubtful one. Is that a percentage worth basing a nosological distinction upon?

When we examine those cases which are cited by authors who treat of this disease, the conviction is forced upon us that in many, if not most of them, there is real intellectual disturbance, though masked by the stronger manifestation of moral perversity; and that these writers have fallen into the common and very natural error of making some isolated, though very impressive case, stand as the representative of an imagined class.

It has always seemed as if all that is included in the idea of moral insanity, might be better disposed of by a closer reference to some phenomena of insanity which are of every day experience, than by recognizing a distinct disease, the support of which involves so much of perplexity.

Every one realises how few of the delusions of the insane mind are ever revealed, and how readily they are revealed under



one set of circumstances and concealed under others. All insane asylums abound in cases of unquestionable mental disease, where its palpable manifestations are so obscure that the unskilled observer would doubt its existence. A certain suspicious reserve, a mysterious shyness of manner, some haughtiness of bearing, or something marked and singular in tone of voice and manner of utterance, some strange attachment to some particular position or seat, or special stress applied to the doing of some act, may be all that distinguishes the individual from other men. Yet one guided by experience, has no hesitation in declaring such cases to be instances of a latent delusion, and is prepared for the sudden exhibition of extreme or violent acts, of which any of these almost unobserved antecedent peculiarities furnishes the explanatory key. In such cases, the extent of the disease is not at all measured by what appears on the surface, and those who treat the insane are constantly surprised by the revelations of recovered patients, as to the multitude and singularity of the delusions which possessed them while in a state which seemed, for all discoverable signs, so little removed from full enjoyment of reason. The delusion may be, indeed, completely latent, having no outward manifestation whatever, and yet may give rise to all those singular, inexplicable, and, perhaps, criminal acts, which a failure to explain by any accompanying indications of delusion has styled moral insanity. It is very easy to conceive a case possessing the declared attributes of the disease called in question; but before admitting the fact, the possibility of a latent delusion underlying its characteristic perversities of conduct, should be well considered.

It may be said, in reply to this view of the subject, that it assigns to delusion too indispensable a place in all cases of insanity, whereas it is well known that in a vast multitude of cases it has no demonstrable presence. This does not necessarily follow. Delusion among the insane may be supposed to bear about the same relative part in their unnatural acts that a well-defined motive does in the acts of those who reason correctly. Persons possessed of reason perform the larger portion of their acts from no well-considered motive of which they are

conscious. Acts are done from an impulse which is, after all, the result of some former reasoning process. So the phenomena of moral insanity, so called, may follow some former diseased process of thought of which the individual himself has no consciousness, and which, of course, no skill of another could detect.

Another explanation of the phenomena termed moral insanity should not be lost sight of. We are apt to forget the vast conservative power of reason in saving man from the depraved appetites and instincts common to him with the brute creation. SWIFT has well shown the humiliation of our species, when man's reason was given to the brute and himself left without it. We all remember, in the entertaining narrative of Captain Gulliver, what a sorry brute man becomes when thus transformed. A human being, born without reason, or possessing it only to a low degree, becomes an instance such as we often see illustrating this point. The instincts of the idiot are low, and are prevented from becoming depraved only by the amount of reason which he has. The small degree of reason that he possesses may educate the faculties of fear, of censure, and punishment, and love of approbation, and may cause him to imitate his superiors by a propriety of conduct that may set him above criminal acts. The same power exerted over the moral propensities by the processes of pure reasoning, is also shown in the cases of children. Childhood, notwithstanding the praises bestowed on it as the unsullied spring-time of existence, does not compare with mature age in the rightfulness of its acts. The burglary and murder of birds-nesting peculiarly gratifies the juvenile heart, and how often must the ghost of the family cat, done to death by truant hands, haunt the little murderer's pillow. Whoever has looked, too, upon a quarrel in petticoats, waged for a bit of cake, sees a ferocity as great almost as the death-struggle of mortal foes. Yet, what but the power of pure reason, working through years, changes these robbers, murderers, falsifiers, and belligerents into discriminating judges, and reverend dispensers of the gospel of mercy and peace? And how easily and naturally will an inclination to those same acts

return when that essence which has rescued from them is withdrawn.

Hence the position taken, that moral insanity, if by that term is meant a disease of the affective faculties, in which the intellect has no share, has no proved existence; and that what has received that appellation is nothing more than either the result of a latent, undetected delusion, whose *modus operandi* we are unable to demonstrate, or the passive effect of a weakened influence of the reasoning powers over man's baser instincts.

A review of minor mental maladies would be incomplete without mention of that form of well-known mental disease which will be more quickly recognized from some of its leading features than by any name that could possibly apply to it. It seems to consist in a love for the extreme, the eccentric, and the general opposite to the received opinions, practices, and fashions of the rest of mankind. One would believe this class to be much more numerous than it really is, from the facility with which a single individual, having played himself out in one character, turns up in another. To him, all the world is, literally, a stage, which he crosses every time the last new, strange idea finds a lodgment in his quickly receptive, but perfectly non-retentive brain. In religion, he follows a side track, with none but his kindred motley associates, no two of whom agree, except in the common opposition to everything established by the concurrence of the rest of mankind. In politics, he is so far advanced from every body else that he is rarely overtaken, and should he be, he disappears entirely, his occupation being gone the moment he finds the world at the same goal with himself. This class possesses affinities of its own; it has its own special literature,—a something, part medical, part religious, and part politico-economical,—and if not actually a species of insanity, it is the best recruiting ground for the insane asylum.

A solitary life is not only the surest preparation for mental disease of the most unpromising kind, but where it exists from confirmed choice may, of itself, be regarded as a species of

insanity. No one is safe from the visitation of mental disease who allows one of the natural connections which hold him in his place, as a social being, to be broken. Decidedly the most powerful conservator of reason in the individual is that constant exercise of the moral and mental faculties which a close relation to society creates. Those whose habits or associations hold society at arm's length, must always be considered in peril. Happy is the man, in this point of view, whose daily bread comes from the hands of those with whom he daily associates. A true record would show that a large part of the eccentricities, irritabilities, and consequent calamities of authors, arise less from the close kindred of wit and madness than from the unlucky ability to draw fame and fortune from a distance.

If I were required to produce a lunatic to order, I would take, as the raw material, the college student in his bachelor hall, provided with his needle-book, spools, and the inevitable bag of buttons. Buttons, I grant, are good, but if they are simply holding together the lapels of coats, and are having no part in the social commerce between awkward dependence and quick and tender sympathy, they are as naught. Having thus established a social non-conductor, if I then could introduce into my subject some strange element of religious belief, some crotchet of unheard-of philosophy, or, even some *outré* taste in matters of every-day life, I could safely lay my work up to dry, fully confident that time would do the rest.

A recognition of these various forms of mental disease is of especial importance in their relation to medical jurisprudence. This department of medical science is shorn of much of its value in shaping the administration of justice, by overlooking the importance of these minor mental maladies in multiplying infractions of the law. The physician is always ready enough to throw the influence of his opinion into the scale where great crimes have attending circumstances, out of which science can show proof of irresponsibility from mental disease; but he is not so often willing to ask himself the question, in lesser offences, how much of mitigation there may be in some incipient mental malady which none suspect, and which it is no one's

business to think of but his. To my own certain knowledge, the courts of this State are continually sending palpable insane men to its penitentiary, from which only their lack of profit as workers releases them. We cannot say that medical science has fully vindicated itself, till this blemish on our civilization is wiped away.

It was the remark of one, not more distinguished for his large acquaintance with the insane than for his eminence in other respects, that "an insane asylum is the best of all standing proofs of the doctrine of special providences." This remark implies a wonder at the small number of casualties that attend the association of many individuals, so large a proportion of whom are moved by the most dangerous promptings; and, among the surprises before alluded to, on hearing from convalescent patients of the strange hallucinations that have attended their disease, not the least is that they so unfrequently carry the delusions which possess them, into violent acts; and so far from being jealous of the introduction of the plea of insanity in criminal cases, our surprise is that it does not oftener occur.

It is one of the duties of medical men to keep themselves, in some degree, acquainted with their local court calendar of criminal trials, and be vigilant lest the heavy wheel of justice tread into the mire some broken but blameless spirit, whom no friendly hand is outstretched to save.

He who "spake as never man spake," uttered, as the most solemn of all his reproaches, "I was sick and in prison, and ye visited me not." As the insane are sick in a double sense, how deep the obligation becomes to every conscientious mind.

At this time it is the fashion to decry the medical expert who lifts up his voice from the witness-stand, to temper the stroke of justice as it descends on the head which God, in his mysterious wisdom, has already smitten. But sneering will no more blow away an eternal fact, established in a disease, than railing could lift the seal from the Jew's bond. The plea of insanity has found its firm stand at the criminal bar, and will continue to reappear through all time; and the clear voice of

medical science, heard above all the scoffers that time can engender, must be raised as long as it is true to the vocation with which it is called.

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ARTICLE XX.

REPORT OF THE COMMITTEE ON SURGERY, TO  
THE ILLINOIS STATE MEDICAL SOCIETY.

BY PROFESSOR E. ANDREWS, of Chicago.

The department of surgery has made some important advances since our last meeting, which your Committee deem it important to note and discuss. Not only have we the ordinary improvements of peace to chronicle, but also the bloody experience of war. It will, therefore, be advisable to divide this Report between the two topics of Civil and Military Surgery.

CIVIL SURGERY.

To a State Medical Society it is appropriate to recount, first, such improvements as have originated within our own borders. Among these, we have observed a new mode of treating ununited fractures, devised by Dr. PRINCE, of Jacksonville. The principle is applicable only to oblique fractures; and consists in a mode of making pressure of the two fragments against each other laterally, without compressing the soft parts. For this purpose, a strong steel semi-circle is constructed of a size rather more than sufficient to embrace the limb to which it is to be applied. From either end a narrow conical point projects towards the centre, far enough to reach the bone. One of these advances and recedes by means of a thumb-screw. In the use of the instrument, a puncture is made on opposite sides of the limb, in such a position that one puncture shall come down upon one fragment of broken bone and the other upon the other, at the place where they lap by each other. Into these incisions the two points of steel are inserted, and the extremities carefully placed upon the bone. The movable point is then screwed firmly in, by which means the fragment of bone against which

it rests is pressed against its fellow with great force, and held there with entire security. In this way, excellent cures have been made with very little inconvenience to the patient or surgeon.

Some improvements have been proposed in the treatment of ordinary fractures. Professor ANDREWS, of Chicago, has devised an instrument for making counter-extension by adhesive-straps. It consists of an iron rod, four feet long, which is cut to a screw the whole length. This slides into a brass tube of the same length, the distance to which it goes being determined by turning a nut upon the screw. The upper end of the tube is continued by a steel bow, which is intended to curve in front of the shoulder, and bears a hook at the extremity, which lies just above the top of the shoulder. A cross-bar at the foot of the instrument is attached to the leg in the ordinary way by adhesive straps for extension. The counter-extension is then made as follows:—Three large adhesive-straps are cut, two of which are two yards each in length and three inches in width. A third is provided, a yard and a-half in length, and of the same width as the former. One of the long straps is applied from the front of the abdomen, on the same side as the fracture, straight up to the shoulder; it is there turned straight down the back, leaving two inches of slack at the top of the shoulder. The other long strap is applied as follows:—One end is placed obliquely across the trochanter of the sound side, the strap is then carried obliquely up and across the abdomen and chest, meeting the other strap at the shoulder; it is there turned down the back obliquely, leaving a slack as before, and terminates by returning across the trochanter at the starting-point. The third strap is then put as a belt around the waist to keep the others in place. The hook, at the top of the instrument, is then made to seize the slack of the straps above the shoulder, and the cross-bar at the bottom is attached to the straps at the foot. Then, by turning the nut on the screw, extension is made to any amount desired. The counter-extension thus applied, is distributed over so large a surface that it is absolutely painless, and does away entirely with the suffering occasioned



by the perineal band. Dr. DODGE, of Janesville, has improved this instrument, by adding a foot-piece, and also by making the bow of spring-steel, so as to have the advantage of its elasticity.

The treatment of diseases of the knee and hip-joints has made immense advances within three years. Dr. H. G. DAVIS, of New York, has been more active in this department than any other man. Without going into the history of the matter, suffice it to say, that the following is the best system of treatment, in view of all the latest discoveries:—Both these joints are managed in the same manner. If the disease is seen in the first stages, a splint is applied at once, which is contrived to make counter-extension by an elastic perineal band, and extension by adhesive-straps, the splint itself being accurately applied to the outer side of the limb, and the lower extremity of it strapped close against the leg. A suitable extension is then made by an endless screw, which being turned, the joint is drawn out, so that the inflamed surfaces of the bones no longer press or rub on each other. In this way, the chief cause of the continuance of the disease is removed, and most of the cases recover. The patient is, at the same time, put upon tonics. Professor ANDREWS, of Chicago, has improved the splint, by having it pass up upon the inner side of the limb, and making the counter-extension not by a perineal band, which is apt to hurt, but by a broad padded crutch piece accurately moulded to fit the perineum and nates. The lower extremity passes quite down to the ground, where it is attached to the sole of the shoe. Adhesive-strap extension is used as before; and, in walking, the weight of the body is not brought upon the limb, but transmitted directly through the instrument to the ground. There is also this additional advantage, that, in case of hip-disease, if it proceeds to the second stage, the splint being upon the inner side of the limb, is not soiled by the discharges of the ulcers nor in the way of dressing them.

The treatment of erysipelas has, during the past winter, received some special attention. Dr. FISHER, of Chicago, has made use of the sulphites of lime and soda with striking success. His experiments were prompted by the investigations of Dr.

POLLI, of Milan, Italy. Dr. POLLI operated upon nearly seventy dogs, producing pyæmia artificially, by injecting putrid pus and blood into their viens, and treating them with the sulphites. These tests were prompted by the well-known power of the sulphites in arresting fermentation, combined with the belief that erysipelas, pyæmia, hospital gangrene, etc., were zymotic or fermentive in their pathology. The results of Dr. POLLI's operations, if correctly reported, show a surprising power in the sulphites over this class of complaints, but he does not appear to have ventured his treatment upon the human subject. Dr. FISHER administers the article in drachm doses, repeated every three or four hours. He prefers the sulphite of soda when the bowels are constipated, and the sulphite of lime when they are too lax. His belief is, that the disease is perceptibly mitigated in twenty-four hours; and, in all cases thus far, a rapid recovery has ensued. Professor DAVIS, of Chicago, has repeated the experiments with favorable results.

Many improvements have been proposed in ophthalmic surgery. Among these, the frequent use of iridectomy, or cutting out portions of the iris, in cases of glaucoma, has attracted most attention. The theory is, that glaucoma is caused by excessive secretion of the fluids within the eye, by which it is rendered too tense, and its contents are injuriously pressed upon. An incision is made near the edge of the cornea, and a portion of the iris, amounting to about one-third, is drawn out through it and snipped off with the scissors. As the iris is the most active secreting organ in the eye, the production of fluid is thus abated, the pressure diminished, and the evil cured or mitigated. There is no doubt of the frequent benefits derived from this operation, but the mania for its performance, which manifests itself among some writers, needs a little check, lest it lead to abuses.

Spinal diseases are much more successfully managed than formerly, especially curvatures. The apparatuses now used are much more efficient than those formerly constructed; and we cure many patients whom we formerly considered as doomed to helpless and hopeless deformity.

## MILITARY SURGERY.

Illinois has contributed her medical men liberally to the necessities of the war. These men all passed a rigid examination before a Board appointed for the purpose, and a large number of incompetent men were thus prevented from obtaining positions. In consequence of the faithfulness of the examiners, the medical officers of the Illinois troops stand very high in respect to skill and capacity.

Under the first call for troops, the Board of Examiners consisted of

Professor N. S. DAVIS, of Chicago,  
Dr. C. RYAN, of Sangamon Co.,  
Dr. G. W. STIPP, of McLean Co.,  
Dr. WM. CHAMBERS, of Coles Co.,  
Dr. CARPENTER, of Coles Co.

At the second call, a new Board was appointed, which, by occasionally filling vacancies, has been continued in full force to the present time. The names of the gentlemen who have been or are now members of it are as follows:—

Professor H. A. JOHNSON, of Chicago,  
Dr. H. W. DAVIS, of Paris,  
Professor H. WING, of Chicago,  
Dr. O. M. BRYAN, of Sycamore,  
Dr. R. ROSKOTTEN, of Peoria,  
Professor D. BRAINARD, of Chicago,  
Dr. D. K. GREEN, of Salem,  
Professor A. L. MCARTHUR, of Joliet.

Up to January 1st, the Board had examined 595 candidates. Of these, 259 were recommended for Surgeons, 266 for Assistant-Surgeons, and 70 were rejected.

We are gratified to state, that the surgeons from this State have, generally, done themselves honor.

As a portion of your Committee has been engaged in active field service during the year, we are enabled to present to the Society some conclusions which we have derived from a large number of gun-shot wounds, with the operations and results

consequent upon them. Much of this information we obtained by personal observation upon the field, and all of it from thoroughly reliable sources.

The wounds were distributed through the body in the following proportions:—

Wounds of the Head,	50
do. Neck,	10
do. Trunk, (not including pelvis,)	164
do. Arm,	69
do. Elbow,	14
do. Fore-arm,	43
do. Hand,	77
do. Hip,	43
do. Thigh,	109
do. Knee,	26
do. Leg,	79
do. Foot,	50
Total,	734

*Injuries of the Head.*—We saw great numbers of these in different battles, of whom we could obtain no record. Our recorded cases are 50 in number, which were distributed as follows: flesh wounds and contusions 30, fractures of the face 9, fractures of the cranium 5. The small number of fractures of the cranium results from the following causes: 1st, many wounded in the brain die on the spot, and never appear before the surgeon; 2d, the face lying in front of the cranium, often shields it; 3d, many bullets, striking the cranium obliquely, glance off, merely plowing the scalp. Of these 5 fractures, 2 were from bullets penetrating the brain, and 3 from pieces of shell or oblique bullets. They all died without exception; only 1 was trepanned, and he without benefit. The general result in military surgery is, that gun-shot fractures of the cranium are fatal, and that trepanning is very seldom useful. In penetrating wounds of the brain, the bullet drives before it numerous fragments of bone, hair, clothing, etc., which lodge in the cerebral substance, and occasion hopeless inflammation. A few un-

recorded cases of recovery, however, came to our knowledge, and it is worthy of notice that these were, without exception, wounds of the anterior lobe of the brain, which, for some reason seems to sustain injury with less mortality than any other part.

Of the 9 fractures of the face 5 recovered, 1 died, and 3 remained in a doubtful state. Bullet wounds in the bones of the face are somewhat prone to be followed by secondary hæmorrhage.

Of the 30 flesh wounds, 16 recovered, 4 died, and 10 remained doubtful. Of the entire 50 wounds of the head, of all kinds, 26 recovered, 10 died, and 14 remained uncertain.

*Wounds of the Neck.*—These were 10 in number, and were all flesh wounds; 6 recovered, and 4 remained in doubt. Wounds of the large vessels, and fractures of the cervical vertebræ usually die on the field, at once, without coming to the notice of the surgeon.

*Wounds of the Trunk.*—Under this head we include the shoulder, but reserve the hips for a separate consideration, as thus considered, the wounds of the trunk were 164 in number; 36 penetrated the lungs, 10 pierced the cavity of the abdomen, 31 were flesh or fracture wounds of the shoulder, and 87 were flesh wounds of various regions, or fractures of ribs, not penetrating any cavity.

Of the 36 wounds of the lung, 12 recovered, 18 died, and 6 were uncertain.

Of the 10 wounds penetrating the cavity of the abdomen, 2 were stabs, and 8 gun-shot wounds. The stabbed cases both recovered; but of the 8 bullet wounds, 6 died, and 2 remained in doubt. There was very little hope of them, however, and they should, probably, all be reckoned as dead. With very few exceptions, bullet wounds into the abdominal cavity are all fatal. It may be a question worthy of serious thought, in view of the hopelessness of our present practice, whether we ought not to cut boldly into the abdominal cavity, wash out the filth, and, bringing the wounded intestine to the surface, endeavor to produce an artificial anus.

Of the wounds of the shoulder, 31 in number, 20 recovered, 2 died, and 11 remained in doubt.

The 87 superficial wounds of the trunk all recovered.

Of the total number of those wounded in the trunk and shoulder, 20 died, 142 recovered, and 2 were doubtful.

Wounds of the head, neck, and trunk, from their nature, seldom admit of much surgical assistance; taken as one class, they present a mortality of about 20 or 30 per cent; which may be somewhat diminished by good care, or horribly increased by bad air in a crowded hospital; but can be little affected by operative measures, except in a few instances.

*Wounds of the Arm.*—The very opposite is true, however, of the wounds of the extremities; here the skill and sound judgment of the operator are of immense value, and the correctness or error of his measures will produce vast changes in the ratio between mortality and recovery.

Of wounds of the arm, our records show 69 cases, of which 28 were compound fractures of the humerus, and 41 were flesh wounds. The flesh wounds all recovered; of the fractures, 21 recovered, 4 died, and 3 were in doubt. In 6 of the fractured cases, the shoulder-joint was resected; of which, 5 recovered, and 1 died. In 6 others, amputation was performed at the shoulder-joint; of which, 4 recovered, and 2 died. In 8 cases, amputation of the arm was performed; of which, 7 recovered, and 1 is unknown. In 8 cases, no operation was performed, and the fracture was treated with splints; of these, 7 recovered and 1 died.

The ratio of mortality in all the gun-shot fractures of the humerus is 1 in 7. The question of the grounds of choice, between resections and amputations of the extremities, will be discussed below, under the head of operations.

*Wounds of the Elbow.*—Of these, 4 were flesh wounds, of which, 2 recovered, and 2 are unknown; 10 cases were compound fractures of the joint, of which, 7 recovered, 1 died, and 2 remained undecided. In 4 of the cases, resection of the joint was performed, of which, 3 recovered, and 1 died. In 3 cases, amputation of the arm was resorted to, of which, 2 recovered, and 1 was not decided. In 3 cases of less severity, no operation was performed, and all recovered.

The total number of wounded in the elbow was 14; of whom, 9 recovered, 1 died, and 4 remained doubtful.

*Wounds of the Fore-arm.*—Of these, 27 were flesh wounds, and 16 were compound fractures. Of the flesh wounds, 22 recovered, and 5 were doubtful. Of the compound fractures, 10 recovered, and 6 remained in doubt.

In 4 of the cases, amputation was performed, and all of them recovered; no death, therefore, was observed from wounds of the fore-arm.

*Wounds of the Hand.*—Of these, 38 were flesh wounds, of which, 37 recovered, and 1 died; 25 cases were fractures of the phalanges, of which, 18 recovered, and 7 are unknown; 9 cases were fractures of the metacarpals, of which, 4 recovered, and 5 are unknown; 5 cases were fractures of the wrist, of which, 3 recovered, and 2 are doubtful. 24 fingers were amputated, of which cases, 19 recovered, and 5 were not heard from. One amputation was performed through the metacarpals,—result unknown. One shot across the metacarpals was very unjustifiably treated by amputation of the fore-arm, four inches above the injury; the patient recovered.

Total wounds of the hand, 77; known mortality, 1.

*Wounds of the Pelvic Region.*—40 flesh wounds of this region occurred, of which, 30 recovered, 3 died, and 7 were undecided; 1 of the 3 cases which died was wounded in the bladder, another perished of secondary hæmorrhage and general exhaustion, from the bad air of an overcrowded boat, and the third died suddenly from cause unknown.

Only 3 cases of fracture of the pelvis were brought to our notice, 2 of which recovered, and 1 died; the viscera were not wounded in either. Total wounds of the pelvic region, 43.

*Wounds of the Thigh.*—This is a most important division of the field of military surgery, and from it spring some of the most trying and difficult questions which are ever laid before the operator for decision. The discussion of these questions will be given below, under the head of operations.

The total number of wounds of the thigh was 109, of which, 90 were flesh wounds, and 19 were compound fractures. Of the



90 flesh wounds, 76 recovered, 3 died, and 11 were doubtful; of the 19 fractures, 6 recovered, 12 died, and 1 was doubtful; 5 of the fractured cases were amputated at the upper third, of which, 1 recovered, and 4 died; 3 were amputated at the middle third, of which, 2 recovered, and 1 died; 1 was amputated at the lower third, and recovered; 2 cases were treated by resecting the fractured portions in the continuity of the shaft, both of these died; 9 cases were treated without operative interference, by simply employing splints, position, and such incisions as were necessary to evacuate pus, of these, 3 recovered, and 6 died. 2 of those which recovered were shot in the cancellar tissue of the neck or trochanter, where any operation must necessarily have been amputation at the hip, or excision of the head of the bone; 1 of them lay twenty hours on the field, in very raw and cold weather. It would seem that shots through the cancellar tissue, at the superior fifth of the femur, are much less dangerous than those in the compact bone of the shaft below; the reason is, that when a ball bores its way through spongy bone, it produces only a moderate amount of shattering, owing to the yielding character of that tissue; but the impact of a minnie bullet upon the brittle ivory of the shaft, shatters it for several inches, and disperses the fragments with the force of an explosion among all the surrounding tissues, producing immense disorganization. These cases nearly all die within the first five days, no matter what treatment is adopted.

*Wounds of the Knee.*—There were 26 wounds of the region of the knee, of these, 14 were flesh wounds, and 12 were compound fractures; 12 of the flesh wounds recovered, none died, and 2 remained doubtful. Of the 12 compound fractures, 5 recovered, 4 died, and 3 remained doubtful; 10 of these fractures were treated by amputation at the lower third of the thigh, of which, 6 recovered, 3 died, and 1 remained in doubt; 1 case was treated by resection of the knee-joint, and recovered; 1 was treated without any operation, and died. In this connection, it may be remarked, that we observed a considerable number of cases of gun-shot fractures of the knee at the battle of Shiloh, very injudiciously treated as ordinary fractures,

without any operation; as we could obtain no record of the cases, we have not entered them in the lists, but we never knew one to recover. Let any young surgeon, who is reluctant to sacrifice the limb or joint in these cases, take the trouble to dissect two or three of them, and he will see at once why they all die, unless they are amputated or resected. The bullet disorganizes the interior of the joint in a most surprising manner, filling it with five hundred fragments of bone and cartilage and putting it in a condition from which no human frame can recover without operative help.

*Wounds of the Leg.*—These were 79 in number, of which, 56 were flesh wounds, and 23 were fractures. Of the 56 flesh wounds, 51 recovered, 1 died, and 4 were undecided; of the 23 cases of fracture, 14 recovered, 7 died, and 2 are unknown; 12 of the fractures were treated by amputation of the leg, of which, 11 recovered, and 1 died; 1 was treated by amputation of the lower third of the thigh, and recovered; in 1 case, a portion of the bone was resected, which also recovered; 8 cases were treated by splints, without any operation, of these, 2 recovered, 4 died, and 2 remained doubtful.

*Wounds of the Foot.*—These were 50 in number; 31 were flesh wounds, and all recovered; 4 were fractures of the phalanges, and all recovered; 6 were fractures of the metatarsus, of which cases, 4 recovered, 1 died, and 1 is unknown; 9 were fractures of the tarsus, of which, 7 recovered, 1 died, and 1 remained doubtful; amputation of the toes was performed in 4 cases, which all recovered. No amputation through the metatarsus occurred; one amputation through the tarsus was performed, and the patient recovered. In 4 cases the leg was amputated, of which, 3 recovered, and 1 died. A portion of the tarsus was resected in 1 case, which recovered.

*Predominance of wounds on the Right Side of the Body.*—In western warfare, the constant occurrence of battles in the forest gives predominance to the operations of skirmishers, who deliver their fire usually from the right hand side of the trees that shelter them; in consequence of this, the right hand, arm, and shoulder, and the right thigh, knee, and leg, receive many more wounds than the left.

*Discussion of the Operations.*—The operations in these cases were, for the most part, executed by well educated and skilful men, so that there was little occasion to criticise them. In respect to the mode of their performance, they will compare favorably with similar operations in any other army. There were some errors of judgment, respecting the kinds of treatment to be decided upon, but not more than was to be expected.

The following tables show the number and locality of the operations:—

*Amputations.*

	Recover'd.	Died.	Doubtful.	Total.
Amputations at the shoulder-joint,	4	2		6
do. of the arm,	9		2	11
do. do. fore-arm,	5			5
do. do. hand,	1			1
do. do. fingers,	19		5	24
do. do. thigh, upper third,	1	4		5
do. do. do. middle do.	2	2		4
do. do. do. lower do.	7	3	1	11
do. do. leg,	14	2		16
do. do. foot,	1			1
do. do. toes,	4			4
Total,	67	13	8	88

No case occurred in which we felt justified in amputating at the hip-joint.

*Resections.*

	Recover'd.	Died.	Doubtful.	Total.
Shoulder-joint,	5	1		6
Elbow-joint,	3	1		4
Parts of hand,	1		1	2
do. shaft of femur,		2		2
Knee-joint,	1			1
Parts of fibula,	1			1
do. foot,	1			1
Total,	12	4	1	17

*Ligations of Arteries.*

(Generally for secondary hæmorrhage.)

	Recover'd.	Died.	Total.
Sub-clavian artery,	1		1
Sub-scapular do.	1		1
Facial do.	1		1
Axillary do.		1	1
Profunda femoris artery,	1		1
Femoral artery,	2	1	3
Total,	6	2	8

In reviewing these tables, it is a matter of profound regret that among some thousands of wounded, who, in different battles have been under the care of ourselves and others, we were able to trace out the results of so few cases; still, the careful observation of the facts here recorded, combined with statistics from other sources, will help to set at rest the most prominent of the disputed questions of military surgery.

The practical questions before the military operator are, mainly, the following:—

1. What cases require amputation?
2. What cases require resection?
3. What cases should be treated without operative interference?
4. What variations from accepted rules must be made, in view of special military exigencies.

First then:—

*What cases require amputation?*—The rule is now well established, that the military surgeon may go almost all lengths in his efforts to preserve superior extremities; but that in the inferior, amputation must be very extensively practiced.

*Amputation of the Shoulder-joint.*—This is only required in cases where an arm has been torn off by a cannon-shot, or otherwise so hopelessly disorganized as to render mortification of the whole limb inevitable. If the head of the humerus only is shattered, resection should be preferred. In our experience, as shown in the above tables, amputations at the shoulder have had a mortality of one in three, while resections of the joint only showed a loss of one in six.

In the Schleswick, Holstein, campaign, ESMARCH gives the results of 19 resections of the shoulder, of which, 12 recovered, and 7 died. GUTHRIE quotes 44 cases of amputation at the shoulder-joint, in the British Wars with Napoleon, of which, 17 died. Combining all these statistics, we find the following results:—

	Total. number.	Recover'd.	Died.	Per cent of deaths.
Amputations at shoulder,	50	31	19	38
Resections of do.	25	17	8	32

Showing an advantage of 6 per cent in favor of resections.

In addition to the diminished risk, the great value of the preserved limb is to be taken into account. After resection, the use of the elbow and hand is perfect; and some soldiers have even returned to duty as soon as the cure was perfected. In case of doubt whether an arm can be saved, time should be taken to watch the progress of the patient before deciding, for, although primary operations are preferable, yet the secondary ones are very well borne; and it is a man's duty to risk his life to some degree, for so important a member as a superior extremity. GUTHRIE fully sanctions the same opinion, when he affirms that amputations of the superior extremity should not be primary, unless the impossibility of saving the limb is obvious.

Sabre cuts and bullet wounds, simply opening the shoulder-joint, without serious comminution of the bone, do not render either resection or amputation necessary, as the patient recovers with ankylosis, in the majority of instances. If, however, the head of the humerus is badly comminuted, an operation of some kind is absolutely required, as the mortality in cases treated simply by splints, is found to be over 60 per cent.

*Amputations of the Arm.*—These should only be performed when there is no possibility of preserving the limb. Amputations for bad fractures of the humerus, or for shattered elbows, while there is still a good pulse at the wrist, are no longer justified by any respectable authority. It is often astonishing to inexperienced surgeons to see from what terrific injuries a wounded arm will recover itself. If the bone is shattered, the artery cut, and the anastomotic vessels also so extensively destroyed, that circulation in the limb ceases, amputation should be immediately resorted to. If, however, circulation continues in some measure below the injury, the loose fragments of bone should be picked out, and the limb dressed as for other compound fractures.

The mortality after amputations of the arm is but slight; of 11 cases in our records, not one died. Of 72 cases mentioned by GUTHRIE, only 17 died. Combining these statistics, we have the following result:—

	Total number.	Recover'd.	Died.	Per cent of deaths.
Amputations of the arm,	83	66	17	20½

*Amputations in the Fore-arm and Hand.*—As we recede from the body, both operations and injuries become less fatal. All the cases of amputation of the fore-arm and hand, of which we could obtain the results, recovered. The few who die, succumb not to the operation, but to the secondary effects of the deadly air of overcrowded hospitals. In every case where required, the amputation may be resorted to without fear; but it should be borne in mind that the fore-arm and hand recover from the most frightful looking wounds with surprising ease, and that every inch which can be preserved is of priceless value to the patient. In a mangled hand, almost every part which is not torn off may be preserved, and should be, generally, retained. We make these remarks, because we have observed that inexperienced surgeons will often be moved by the ghastly appearance of a fractured and lacerated hand, to undertake very unjustifiable amputations.

*Amputations at the Hip-joint.*—No case of this fell under our notice, as we all adopted the principle, that it was an operation which can scarcely ever be justified.

*Amputations of the Thigh.*—In this part of the body, we reverse the rules applied to the superior extremity. Instead of going all lengths to save the member, we incline more decidedly to prompt and resolute amputation on the field. Secondary amputations of the thigh are usually fatal, therefore, the decision of the surgeon must be made up on the spot, from the appearance of the case, and resolutely carried out. Our records show 20 amputations of the thigh, of which, 9 died, 10 recovered, and 1 remained doubtful, being a mortality of about 45 per cent. It is of the utmost importance here to observe the difference of mortality between the upper and lower parts of the thigh, because, on this difference are based life and death decisions. The following table illustrates it:—

	Total cases.	Recover'd.	Died.	Doubtful.	Per cent of deaths.
Amputated upper 3d of thigh,	5	1	4		80
do. middle do.	4	2	2		50
do. lower do.	11	7	3	1	27

Showing plainly that "every inch by which this operation approaches the body, increases its danger."

According to LONGMORE'S statistics, a similar percentage was observable in the Crimean Campaign, as is shown by the following table:—

				Per cent of deaths.
Amputation, upper third, in Crimean War,	.	.	.	87
do. middle do.	do.	.	.	60
do. lower, do.	do.	.	.	57

These figures show a more favorable result in our army than in the British, by an average of about 20 per cent. Combining the two tables, we have approximately the following:—

				Per cent of deaths.
Mortality of amputation at upper third,	.	.	.	83½
do. do. middle do.	.	.	.	55
do. do. lower do.	.	.	.	42

The obvious deduction of which is, that the amputation should be made as far from the body as the nature of the injury will possibly permit. Such being the frightful mortality of amputations of the thigh, we tried in two cases to produce a better result, by resecting the ragged ends of the broken femur, and then treating it as for compound fracture. Both these cases died within the fifth day. The same experiment was tried on the Potomac, by Eastern surgeons, and also in the Crimea, and always with the same result,—every case proving fatal.

Still, other experiments have been made, by treating the case simply as a fracture, without any other operation than an incision to evacuate the pus. STROMEYER quotes 4 cases of recovery. Our tables show 9 cases treated in this manner, of which, 3 recovered, and 6 died. These cases were mostly fractures above the middle; hence the mortality of 66 per cent is not greater than would have followed amputation in the same



place. In Europe, after the battle of Toulouse, this mode was tried on 43 of the most favorable cases, with a mortality of about 60 per cent, which, on the whole, is not much worse than the results of amputation, which, in nearly all fractures of the femur, must be as high as the middle, and has a mortality of 55 per cent.

A careful and very deliberate examination of this whole matter, has settled in our mind the following conclusions:—

1st.—A very large portion of the cases with badly comminuted femurs, will die within five days,—under all treatments, alike. There is no perfect reaction.

2d.—Shots through the spongy tissue of the trochanter and neck of the femur, are less fatal than those through the compact tissue of the shaft. This is contrary to STROMEYER'S opinion; but it is nevertheless true. The splintering of the bone, and consequent injury of soft parts, is far less in this spongy part than in the ivory-like shaft below. These cases of fractured neck require neither amputation nor resection of the head of the femur, a large part of them will recover with simple extension-splints and, in some cases, incisions to evacuate pus; whereas, amputations and military excisions at the hip-joint may be practically said to be all fatal. We know of 2 cases of this fracture which recovered without difficulty in straight splints.

3d.—Amputations above the middle of the femur should only be resorted to in desperate circumstances, where the limb below is either torn off or is so injured that it has but little prospect of escaping mortification. If the circulation and innervation are good below, a free incision should be made down to the comminuted bone, and the limb be dressed with a straight splint and adhesive-strap extension-bands. The case is a desperate one, but we are confident that this treatment will save more lives than amputation above the middle.

4th.—If amputation can be made below the middle of the thigh, it should be promptly performed, for all severe compound fractures of the lower half of the shaft of the femur, and all gun-shot fractures of the knee-joint. By this treatment, about 75 per cent of the patients may be saved; but if attempts are

made to save the limb, almost every man will die. At the battle of Shiloh, a large number of cases were treated with this false conservatism, and many lives sacrificed in consequence. If any young surgeon feels reluctant to sacrifice a fair and plump thigh, for a mere little bullet hole of very harmless appearance in the knee, we advise him first to amputate, and afterwards to dissect the limb; he will find within the joint a horrible disorganization, such as no man can reasonably hope to survive, without operative assistance.

*Amputations of the Leg.*—These may be resorted to whenever a useful limb cannot be preserved, as the operation is not excessively dangerous. If, however, the circulation in the foot continues, and a chance of future usefulness of the member presents itself, conservative surgery should be practiced; because the danger of postponing or omitting amputation is not great, even though the foot should mortify. One hint may serve to guard young surgeons against a natural error: when a bullet traverses through the tibia from before, backwards, the front opening in the skin is small, but the fragments of the bone are driven back among the tissues of the calf, producing more danger of mortification than the first glance indicates. On the other hand, if the ball has traversed from behind, forwards, it drives all the splinters outward through the skin in front, doing less real injury than in the former case, but still tearing open the skin, and everting the flesh over an area of two or three inches in diameter. The wound looks so hideous, that it is not uncommon for the inexperienced operator to be moved by it to cut off the better limb and save the worse.

*Amputations of the Foot.*—These may be decided upon and executed by the same rules as in civil surgery.

*Resection of the Shoulder-joint.*—The grounds of choice between this and amputation have already been discussed under the head of "Amputations at the Shoulder." It is to be preferred, in proper cases, both for its superior safety, and because it saves a most important limb.

*Resection of the Elbow.*—Our lists show 4 cases of this resection, of which, 3 recovered, and 1 died. ESMARCH quotes 40

cases, of which, 6 died. Combining the two sets, we have this table:—

	Number of cases.	Recover'd.	Died.	Per cent of deaths.
Resections of elbow-joint,	44	37	7	16
Amputation of arm,	83	66	17	20½

Showing an apparent advantage of  $4\frac{1}{2}$  per cent in favor of resection. As amputation, however, was often for severer injuries than those which required resection, it will, probably, be fair to assume that in injuries which admit of the choice, the risks of the two operations are about equal; but as resection preserves, and amputation loses the hand, the choice is unquestionably for the former. We, therefore, advise resection for all comminuted gun-shot fractures of the elbow-joint, in which the preservation of the hand is not hopeless from gangrene.

*Resections of parts of the Hand.*—These should be governed by the same rules as in civil practice.

*Resections of the Knee-joint.*—The great mortality of amputations of the thigh, has caused this operation to be proposed as a substitute in cases of bullet wounds of the knee. Our tables show only one case, and that recovered. From all sources, European and American, we are able to collect accounts of only 8 cases in military practice, of which, 2 recovered, and 6 died; a mortality of 66 per cent, which is 24 per cent worse than that of amputations at the lower third of the thigh. More extensive statistics, however, are needed to settle its true value. At present, we advise, both from our own observations and careful review of the opinions of other surgeons, that in case good air and freedom from motion can be had for the patient, resection of the knee may be preferred; but, if he must be transported far in an ambulance, or put in a crowded hospital, where there is less than 1200 cubic feet of fresh air for each patient, resection will prove fatal. Amputation should then be at once performed, for delay with a view to secondary resection is not to be thought of.

*Resections in the Leg and Foot.*—These are well borne, and follow the same rules as in civil practice.

*Diseases of overcrowded Hospitals.*—There is a class of deadly complications following the injuries of patients after nearly every large battle, which are almost solely the product of overcrowding and bad air. These are the following:—

Erysipelas,

Pyæmia,

Diffusive phlebitis,

Hospital gangrene.

About 10 or 15 per cent of the deaths in military surgery are from these causes, and I regret to say, that in many instances these dead are slain by the surgeon, whose stupid ingenuity was all expended in procuring beds in warm and close quarters, where the patients poison each others' blood, instead of having free air where they may breathe and live.

We have observed with pain, that, partly by military necessity, and partly by ignorance of ventilation displayed by surgeons, this error of overcrowding is repeated after almost every large battle, and perpetuated in most of our large General Hospitals.

If the weather is not so inclement as to endanger death from cold, we have no doubt that by far the best plan is to keep the patients dispersed for two or three weeks in open tents and booths in the field; for, although in this way they have less comfortable beds, and coarser food than in Post Hospitals, they get fresh air, and with that they often survive the most desperate wounds.

It is often remarked, that men wounded in occasional skirmishes, where they are kept with the Regimental Hospital in the field, seldom have erysipelas or pyæmia, and recover from their injuries far more readily than those sent away to large, square, six story buildings, like the Overton Hospital in Memphis, where overcrowding is frequently unavoidable, and perfect ventilation an impossibility.

The results of our observations in the army, under this head, may be summed up, therefore, in one sentence:—Let the military surgeon see that he gets fresh air for his men in preference to food, warmth, or shelter.

Men will lie in snow, on wet ground, or under open sheds,

and do well on bacon and hard bread; but, in close hospitals they will die, though they have all the luxuries of the world around them.

The principal military hospitals, within the bounds of our State, have been located at Mound City, Cairo, Quincy, Alton, Camp Butler, and Camp Douglas. The hospitals at Mound City and Quincy mostly received sick and wounded from the army in the field, while the others were simply the receptacles of the sick of the local camps. The Rebel sick were mostly at Camp Butler and Camp Douglas, and for some reason seemed to be entirely inferior to Northern men, in recuperative power. At Camp Douglas the ratio of mortality among them was double that of our own soldiers, although they had the utmost care and attention. It would be an important point added to our knowledge, to ascertain whether this difference arose from constitutional difference in vigor, previous bad hygienic management, or mental depression incident to being captured.

The writer of these pages only learned, after his arrival at Jacksonville, that no Report had been forwarded by the Committee on Surgery. He was, therefore, obliged to prepare this in the utmost haste, and without any opportunity for consultation with the other members.

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#### ARTICLE XXI.

### TWO CASES OF POISONING BY THE FRUIT OF THE PODOPHYLLUM PELTATUM OR MAYAPPLE.

By DR. D. C. OWEN, of Houston, Ill.

On the 4th of August, 1860, I was called upon to visit two children of H. C., who, the messenger said, were vomiting themselves to death. I enquired what the children had been eating or taking; he replied, that the parents thought the vomiting was caused by Mayapples, which the children had eaten in the morning.

I drove briskly on, and arrived at the place in, perhaps, half

an hour, where I found two very pretty little girls, aged, respectively, six and eight years, stretched upon their beds, bathed in cold perspiration; their faces pale as corpses; eyes sunken in their orbits; noses pinched; pulse very weak, and scarcely perceptible at the wrist; great thirst; and the stomach contracting so hard and rapidly, in efforts to vomit, that the wrenching pain would cause them to utter sharp screams, one after another, for five minutes at a time. I was told, that the vomiting had been going on for the last four hours, almost without intermission, it being now 12 M.

On examining the matters thrown from the stomach, I found them to consist, for the most part, of seeds, pulp, and membranous covering of the ripe Mayapple, having the peculiar odor of that fruit. I asked them, if they had eaten the rinds of the apples? They said, no; but they had used their teeth to rupture the rinds.

I informed the parents that the recovery of the oldest child was not to be expected, owing to the prostration already produced; but that the chances for the younger were much better. I gave the oldest 1 gr. sulph. morphine, covered the epigastrium and entire abdomen, which was tympanitic and very tender, with a blister; invited the blood to the extremities with hot flannels and sinapisms; gave carbonic acid water, in small quantities, to allay thirst; and, as the bowels had not been moved since the vomiting begun, ordered an enema of castor oil and molasses in warm water. To the younger I gave, perhaps,  $\frac{3}{4}$  gr. morphine, and ordered the same course as for the other, except that for the blister I substituted mustard. They were now kept as quiet as possible for, perhaps, an hour and a-half, when the younger child was sufficiently under the influence of the narcotic to fall into a quiet sleep. The oldest now vomited again bilious matter mixed with blood,—the bile dark green and very thick, the blood dark and coagulated. She complained frequently of burning sensation in the throat. Finding that the injections had failed to move the bowels, I gave

Hydrargyri sub. mur.,.....gr. xij.  
Morphine sulph.,.....gr. j.

They were now both getting warm extremities, the youngest still sleeping. I left powders of morphine and camphor, one of which was to be given after each act of vomiting, should it commence again, or after each stool, should the bowels act too freely. I directed the parents to do everything in their power to maintain the proper amount of heat in the extremities; and, if the means they were then using were not sufficient to keep up the warmth of the body, to use brandy by enema. For the youngest, I left similar powders and directions, should she require them.

Called, August 5th, at 7 A.M.—Found the oldest past all hope,—the eyes glazed and motionless, the death-rattle in the throat, the abdomen swelled almost to bursting, and the under jaw fallen. At half-past eight o'clock she expired. I learned that she had continued to vomit thick bile, with more or less blood mixed with it, about every hour through the night. The youngest child was considerably better, although there was considerable tenderness over the stomach, to remove which I applied a blister; gave Dover's powder to keep her quiet, slippery-elm water for drink, kept the bowels solvent with sulphate of magnesia; and, by the morning of the 8th, she was convalescent.

I have endeavored to give a simple statement of the facts in the above cases, as they occurred; and I will decline making any comments, more than to say, that, after seeing the deleterious effects of the Mayapple in these cases, I would not recommend them as being the healthiest article of diet that we can procure; and I have also kept an eye single on the action of podophylline.

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MENTAL CONDITION OF THE KING OF PRUSSIA.—A private communication from Berlin says:—"You may judge of the King's state of mind when I tell you that, some little time ago, His Majesty was possessed with the idea that a gallows, intended for himself, was being erected under the windows of his palace. Sitting at the window, and looking out upon the court-yard, he would repeatedly say, 'They're building it, they're building it!' I need scarcely add, that nothing was being erected there."



## *The Clinique.*

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### MEDICAL WARDS OF THE MERCY HOSPITAL.

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#### REMARKS ON DIPHTHERIA.

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By N. S. DAVIS, M.D., Professor of Clinical Medicine, &c., Chicago, Ill.

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GENTLEMEN:—The case which will illustrate the subject that will occupy our attention at the present hour, is before you. You will recognize him as a patient, to whom your attention was called eight or ten days since, on account of a sub-acute rheumatism in the ankles and tarsus, of each of the feet.

He was born in Ireland, is about 25 years of age, slightly anemic, and thin in flesh. He had nearly recovered from his rheumatic affection, and had been walking about moderately two or three days. Yesterday he began to complain some of soreness and stiffness in the fauces, with some lameness of the cervical muscles, and this morning we find him confined to his bed. If you now note his symptoms carefully, you will find the skin moderately hot; the pulse 90 per minute, soft and small; the eyes watery; the tongue covered with a whitish coat; the mucous membrane of fauces red, tumefied, and tender; the tonsils considerably swollen, and the whole inner face of each covered with a thick coat of diphtheritic exudation or membrane; and the lymphatic glands in the parotid and sub-maxillary regions, on both sides, considerably swollen. Thus, you have all the essential symptoms of a well-marked case of diphtheria.

If such cases as this are left to pursue their natural course, unmodified by treatment, the pulse usually increases moderately in frequency, but diminishes in force for several days. The skin continues dry and warm; the breath becomes offensive; the glands of the neck remain swollen and hard; the membranous exudation separates from the tonsils and fauces, leaving more or less irregular ulcerations, the discharge from which makes the saliva foeted, sanious, and abundant; a similar sup-

purative inflammation extends to the Schneiderian membrane, causing a muco-purulent discharge from the nostrils, and aiding the swelling of the tonsils in rendering the respiration rattling and sometimes difficult. In the meantime, the mental faculties become more dull, the patient being drowsy, with periods of restlessness and tossing of the extremities, and sometimes delirium. If it is tending towards an unfavorable termination, deglutition becomes more difficult, and the drink often regurgitates through the nostrils; and the pulse becomes very frequent and small; the extremities cool; the sphincters relaxed with involuntary discharges; very irregular respiration; and death. In some cases in which the general and local symptoms have progressed several days, without any unfavorable indications, the diphtheric inflammation extends suddenly to the larynx, adding the dyspnœa and cough peculiar to croup; and determining an early fatal result.

In a few instances, the diphtheritic inflammation attacks, simultaneously, the fauces and larynx, causing the peculiar symptoms of croup to be present from the beginning. Such cases are distinguished from simple pseudo-membranous croup or laryngitis, by the accompanying swelling of the glands of the neck, and of the fauces, and by the lower grade of general fever.

In a large majority of the cases of diphtheria, presenting the symptoms exhibited by the patient before you, the general febrile action continues moderate for five or six days; the patient complains much of weakness, and of difficulty or pain in swallowing; the membranous exudation gradually separates from the surface of the tonsils and fauces, leaving superficial ulcerations, and an abundant and moderately fetid flow of saliva. The ulcerations heal in four or five days; the saliva becomes natural; all febrile symptoms disappear; and the patient becomes convalescent. In most instances, the convalescence is protracted and characterized by much weakness, and a susceptibility to renal affections, anasarca, swelling and supuration of the lymphatic glands of the neck, and sometimes paralysis. It should have been mentioned that the urine is, in

many cases, albuminous during the active progress of the diphtheritic disease; and also, that diphtheritic exudations are not limited, in all cases, to the mucous membrane of the throat, but may appear on the mucous membrane of the genital organs, or upon cut or abraded surfaces in any part of the body.

*Pathology.*—From the symptoms of this case, and the brief general description of the disease just given, it is evident that diphtheria is not a mere local inflammation, but a general disease of a febrile character, accompanied by local inflammatory processes, more particularly in the fauces and glands of the neck. To understand its pathology fully, we must consider carefully those symptoms which indicate both the condition of the blood and the properties of the solids. The general tendency to the formation of membranous or diphtheritic deposits on all inflamed or abraded surfaces, the morbid condition of the secretions, and, especially, the offensive odor of the breath and saliva, plainly indicate a morbid condition of the blood, of a septic or degenerative character. The constant tendency to ulceration, and often gangrene, in the parts affected with local inflammation, the general feebleness of capillary circulation, the muscular debility sometimes ending in paralysis, and the dulness of the mental faculties, all point to an impairment of the elementary properties of the tissues, more especially that of vital affinity, by which all atomic and secretory changes are controlled in the living organization, and the organized structures are enabled to maintain their integrity. Hence, pathologically, we must class diphtheria with the typhoidal class of febrile diseases, in all of which there is an inherent tendency to degeneration or impairment of the properties of both solids and fluids throughout the system. Whether this impairment is caused by the introduction of some subtle poison into the blood, in the form of a contagion, infection, or miasm, which, by its presence, changes the properties of the blood, and thereby, also its relations, both chemical and vital, to the organized tissues; or whether it is caused by some occult atmospheric condition, by which the oxygen, electricity, and other ingredients of the atmosphere, fail to exert their accustomed sustaining influence on

the vital properties of the living organization, cannot be satisfactorily answered in the present state of medical science. But whatever may be the immediate cause, the existence of the pathological conditions described, can hardly be doubted by any one who has attentively observed the disease at the bedside. With the diminution of vital affinity in the solids, and the progressive deterioration of the blood, there is, necessarily, general impairment of both secretion and innervation.

From these views of the pathology of diphtheria, we may deduce four well-defined and rational indications for treatment:—

1st.—To arrest the deterioration of the blood.

2d.—To improve the vital affinity and, of course, the general tonicity of the tissues.

3d.—To restore the secretory organs to their natural degree of activity.

4th.—To mitigate the violence of such local inflammations as may exist in each individual case.

To fulfil the first of these indications, the chief reliance has been placed on chlorine, bromine, and iodine, or their salts, such as the chlorates of potassa and soda. From experiments recently made with the sulphites of soda and lime, and which have been fully detailed to you in former clinics, it is rendered probable that the sulphurous acid salts will be found more efficacious in the treatment of all the diseases dependent on blood-poisoning or a septic deterioration of that fluid, than those previously mentioned. As remedies for fulfilling the second indication, we place our chief reliance on quinine, iron, and pure air. Many resort to diffusible stimulants or exhilarants, such as the various alcoholic beverages. These agents, however, spend most of their direct action on the nervous centres, while, indirectly, they depress those elementary properties of the tissues which we deem it most important to sustain. If the two first indications are effectually fulfilled, the accomplishment of the third,—namely, to restore secretion,—follows as a necessary result. But in the early stage of severe diphtheria, the dryness of the skin, the scantiness of urine, and the general

febrile action is often such that much advantage may be obtained from the use of such remedies as exert a more direct influence over the more important excretory functions. For it must not be forgotten, that retained excrementitious matter may become as deteriorating to the blood, and as depressing to the properties of the tissues as the primary cause of morbid action.

Consequently, such remedies as aid in restoring a healthy activity to the organs of excretion are often indicated, both to prevent the accumulation of excrementitious matter and for facilitating the elimination of any poison that may have been imbibed as the cause of the disease. Mercurial alteratives, aided by mild diaphoretics and diuretics, will fulfil this indication more promptly and efficiently than any other means.

The means designed to act locally in combatting whatever local inflammations exist, must vary according to the extent, intensity, and stage of such inflammation in each case. In the early stage, the external applications to the swollen lymphatic glands of the neck, should be anodyne and discutient, such as an infusion of aconite leaves with muriate of ammonia dissolved in it. In the more advanced stage, when the glands remain indurated and swollen, stimulating liniments may be used: such as a combination of olive oil, oil of turpentine, and chloroform; or a mixture of camphorated soap liniment and tincture of iodine. To the inflamed surface of the fauces and tonsils, in the first stage, the local applications should be of a decidedly soothing character. All cauterizing or irritating applications in this stage, I am satisfied from close observation at the bedside, positively do more harm than good. In the latter stages, when unhealthy ulcerations or gangrene actually exists, the local applications should be anti-septic and moderately stimulant. For the first stage, I generally use nothing for the interior of the throat but the following:—

Ry. Chlorate of Potassi,.....	5j.
Hydrochloric Acid,.....	20gtts.
Tincture Belladonna, .....	5j.
Water, .....	3iij.

Mix. Give from half a teaspoonful to a dessert spoonful every

two hours, without further dilution. The application is made much more complete and easy by swallowing it, than by any process of swabbing or sponging; while the introduction of the medicine into the system constitutes one of the best means for fulfilling the first indication in the general treatment. In the latter stages, the best local application is a dilute solution of chlorate of potassa and tincture of the chloride of iron. Occasionally, an ulcerated surface may be presented of that foul character that the direct application of a strong solution of sulphate of copper, or of iodine, or of per sulphate of iron, a few times would be beneficial. But in my own practice I have not found it necessary to apply anything with a swab or sponge to the throat of a diphtheritic patient during the last four years. Having thus given briefly my views concerning the nature of diphtheria and the general principles of treatment, it only remains to prescribe for the patient before us. The disease, with him, is yet in its first stage. He is somewhat anæmic and, as already mentioned, has been recently under treatment for sub-acute rheumatism. We shall direct the following prescriptions, namely:

R̄. Chlorate of Potassa,.....	3iss.
Hydrochloric Acid,.....	20 gtts.
Tincture of Belladonna,.....	ʒiij.
Water,.....	ʒiij.

Mix, and give a teaspoonful every two hours.

R̄. Sulph. Quinine,.....	16 grs.
Pulv. Doveri,.....	40 “
Hydrag. chlind. mite,.....	8 “

Mix, divide into eight powders, and give one every six hours. At the same time we will keep the swollen lymphatic glands, behind the angles of the jaw, covered with a cloth wet in the following infusion, viz.:—

R̄. Aconite leaves,.....	ʒj.
Muriate of Ammonia,.....	ʒss.

Mix; and pour on them one quart of boiling water, and use only slightly warm.

The first prescription, taken in small and frequently repeated

doses, constitutes the only local application necessary for the throat; while, as an internal medicine, it is efficient in counteracting the further degeneration of the blood. The second prescription will aid in improving the tonicity or vital affinity of the solids, gently promote the excretions, and allay irritability. In about forty-eight hours we shall expect to find the white exudation on the tonsils mostly removed, and in its place some degree of ulceration. The saliva will then be more abundant and offensive; the general febrile symptoms less; the pain in swallowing less acute; but the patient complaining of much weakness. If no evacuation from the bowels occurs during that time, we shall give him a mild laxative, and substitute for the previous prescriptions the following:—

R. Tinct. Ferri Chloridi, ..... ʒss.  
 Potassa Chlor., ..... ʒij.  
 Aqua, ..... ʒiv.

Mix, and give a teaspoonful every three hours, and one dose of sulphate of quinine and Dover's powder each night and morning. If the glands of the neck remain swelled and hard, then apply, three times a day, the following liniment:—

R. Camphorated Soap Lin., ..... ʒij.  
 Tinct. Iodine, ..... ʒj. Mix.

Under this treatment we shall expect the patient to be fully convalescent from the diphtheric disease in from six to eight days.

*Note.*—In the progress of the above case, the diphtheritic exudations had disappeared by the third day, leaving only slight ulcerations: and by the seventh day, the patient was quite well, except a little swelling of the glands behind the angle of the jaw, on the right side, and some general debility.



## Book Notices.

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MEDICAL COMMUNICATIONS, WITH THE PROCEEDINGS OF THE SEVENTY-FIRST ANNUAL CONVENTION OF THE CONNECTICUT MEDICAL SOCIETY, HELD AT ROCKVILLE, MAY 27TH AND 28TH, 1863.

The present pamphlet completes volume I. of the new series, and contains the following brief but interesting papers:—

The Dignity and Grandeur of the Medical Profession; by Josiah G. Beckwith, M.D. Logic applied to Medical Science; by James C. Jackson, M.D. Vindication of Army Surgeons; by Ashbel Woodward, M.D. Calomel in Scarlatina; by Ebenezer K. Hunt, M.D. Physiology of the Chrystalline Lens, or Adjustment of the Eye to Distinct Vision at Different Distances; by Moses C. White, M.D. Sanitary Report of Hartford County; by Lucien S. Wilcox, M.D. Report of an Anomalous Surgical Case; by M. C. White, M.D. Biographical Sketch of the late Luther Ticknor, M.D.; by J. G. Beckwith, M.D. Biographical Sketch of the late Jehiel Williams, M.D.; by J. G. Beckwith, M.D.

The first article mentioned, being the Annual Address, by Dr. Beckwith, contains a condensed but very interesting resumé of medical history, and presents the high moral and scientific objects of our profession in very chaste and eloquent language.

The following, which constitutes the closing paragraphs of the address, is worthy of a perusal once a week throughout the year:—

“In contrast with this desperate progress of the age, our profession presents a noble contrast. Our progress has been steady and gradual; in the grand accumulation of its literature, in the higher standard of its attainments, it cautiously advances through long and intelligent processes of transition.

“Human life, although protected by human and divine laws, can only be committed with safety into the hands of a profession composed of men of high intelligence, of extensive learning. We observe in the history we have given of ancient medicine that one important fact stands forth prominently,—that all the great lights in the profession were men nurtured in the schools and educated in the colleges and universities of the day. Hence

the researches and discoveries made by them, of which we receive the benefit. With learning, must be combined strong common sense, a retentive memory, and sound discriminating judgment. He must be impressed that he has an important work to accomplish, requiring intense labor, study, and observation to make it useful to the world. He must be a man of large brains and broad sympathies,—broad enough to embrace the whole human family. The body must be educated as well as the mind; he should be strong for toil, and capable of enduring the inspiration of the mind. Such men are not usually fanatical, but useful and practical. They do not originate narrow systems and dreamy speculations, but substantial improvements and real reforms, based upon scientific research. The physician of this age must be eminently practical as well as liberal in his views. He must be a sort of balance-wheel to regulate the social system. He must be a patient man in the best sense of the word, a *gentleman*, kind, courteous, obliging, modest, generous, and genial; conceding, forbearing, holding fast and loving all things good; not stubborn, but maintaining a manly independence. Such a man possesses the elements of moral greatness, and will exert a healthy influence over these stormy and perilous times. He will be useful to the profession and to the world, inspiring confidence and nurturing hope, evolving light out of darkness and dispelling the gloom which prevades the chamber of death with the celestial rays which radiate from the great centre of light and happiness. His faith will be strong from intelligent research in a system of medical practice which has a literature and history of which the world may be justly proud, being the observations of more than three thousand years; reviewed, corrected, and tested by the experience of men of the greatest learning in the profession, men of profound research, and the discoveries in science and the arts during this whole period of time, of all the scientific men who belong to our brotherhood. And the march of improvement must still continue to be upward and onward. Constant contributions are being made to its literary wealth from the scientific researches of its hundred colleges and universities on both the continents, and by the observations of the thousands engaged in the practical duties of the profession. Higher standards of excellence and greater perfection in all the departments of medicine will yet be reached. These considerations will encourage every member of this venerable Society to do his whole duty in that noble cause to which he has dedicated himself during his brief day of labor; and in the consummation of this material world.

"When the cloud-capped towers, the gorgeous palaces,  
Nay, the great globe itself shall be dissolved,  
And like the baseless fabric of a vision,  
Leave not a wreck behind."

We shall survive this wreck of matter and this crash of worlds. But the labors of our profession will have terminated with the annihilation of disease and death, and man's restoration to Paradise. The profession will then rest from their labors and enter upon the reward of enduring faithfulness to suffering humanity."

MORTALITY OF PHILADELPHIA FOR 1862. REPORT ON METEOROLOGY AND EPIDEMICS. Read before the College of Physicians of Philadelphia, Feb. 4th, 1863. By WILSON JEWELL, M.D., President of the Medical Society of Pennsylvania, &c., &c.

This is a very interesting and valuable statistical paper of forty printed pages, by one who cultivates zealously and successfully the field of hygiene. A similar report should be published annually in relation to every city and county in the whole country.

GASTROTOMY. Large abdominal uterine tumor extirpated by JOHN O'REILLY, M.D., F.R.C.S.I.

This is a brief but interesting report of a case of "fatty-fibro-cellular" tumor, weighing over *thirty* pounds, originating in the lower part of the abdomen. The patient lived nine days after the extirpation.

LINDSAY & BLAKISTON'S PHYSICIAN'S VISITING LIST, DIARY, AND BOOK OF ENGAGEMENTS. Thirteenth year of its publication.

The volume of this very convenient, we might say, almost indispensable, book, for 1864, is now ready, and offered to the profession at the following prices:—

For	25	patients,	weekly,	plain,	.....	\$	63
"	25	do.	do.	tucks,	.....		1.00
"	50	do.	do.	plain,	.....		75
"	50	do.	do.	tucks,	.....		1.25
"	100	do.	do.	do.	.....		2.00

An *interleaved* edition is also published, for the use of such physicians as compound and furnish their own medicines to

their patients; and sold at a small advance on the above prices.

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CATALOGUE OF MEDICAL, SURGICAL, DENTAL, AND SCIENTIFIC BOOKS. Published and for sale by LINDSAY & BLAKISTON, No. 25 South Sixth Street, Philadelphia.

This is a full catalogue of valuable medical and scientific books, with the publishers' prices attached. Those wishing to add to their libraries would do well to consult this catalogue.

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THE PEOPLE'S DENTAL JOURNAL. Edited by W. W. ALLPORT, D.D.S., and S. T. CREIGHTON. Quarterly; price 50 cents per annum

The July number of this journal is before us, filled with useful matter for all who are interested in the proper care and preservation of the teeth; and this should include the entire community.

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### Selections.

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#### CALOMEL AND TARTAR EMETIC IN THE ARMY.

Reprinted from the "American Medical Times."

*To the Editor of the American Medical Times:*

SIR:—Participating in that national sensibility which causes Americans to shrink from the touch of anything that may tarnish our national escutcheon, I was wounded by the circular of the Surgeon-General, dated May 4, 1863, which directed calomel and tartar emetic to be "struck" from the Medical Supply-Table of the army; and this the more deeply, because, from the official eminence of its source, it might be regarded on the other hemisphere as a proof of our professional retrogression. When contemplated from another point of view, whence it may be looked at as an evidence of our individual and national imbecility, as shown in the readiness with which we bend to every breeze of fanaticism, whether freighted with medical or political heresy, it is then sufficiently humiliating, and should be met with a rebuke from every conservative member of the profession.

The efforts of the *American Medical Times* to justify this

act, and to sustain and sanctify this error by its influence over its readers, have induced me to make this reply, not more to the circular than to the remarks of its editor in vindication of it.

I can find excuses for the action of this officer in the fact that he has seen but little of military service, and knows but little from personal observation of the diseases of soldiers; and also in the influence imputed to the National Sanitary Commission over the Chief of the Medical Bureau, to the head of which commission, he being clothed with a sacerdotal pallium, we may, perhaps, justly impute a full share in the introduction of this species of medical fanaticism into the army of the United States.

For the gentleman who made a speech in defence of the circular before the American Medical Association, at Chicago, an apology may be framed on the supposition that it was for his interest to do so. The official relation of the parties renders such a supposition quite probable, and would, in other courts, impeach his testimony.

Whilst in my own mind I can satisfactorily account for the action of the Surgeon-General, and apologize for the indiscretion of his friend in the Medical Association, I am entirely at a loss for an explanation of the course pursued by the editor of the *American Medical Times*, in bringing the influence of a journal heretofore aiming to be the exponent of the medical opinion of the country to the defence of an act offensive to that profession and insulting to the medical staff of the army. One reason given by the Surgeon-General for the erasure of calomel and tartar emetic from the army medical Supply-Table, viz., that it was done in consequence of the teachings of "modern pathology," may deceive the readers of "Physiological Essays," but cannot mislead the students of historic medicine, who know how much therapeutics are indebted to empiricism, in its ancient signification, for the introduction of many important articles into the *materia medica* prior to the time of Galen, and who are also aware that the usages of that sect who tested the utility of remedies by experimentation still furnish the means by which judgments are formed of their claims to a position in our works on therapeutics.

The other reason, judging from its position, the first in importance in the estimation of the Surgeon-General, rests upon reports of the Sanitary Inspectors, who have assumed that certain forms of humid gangrene seen among the troops in the United States service are the effects of the administration of

mercury; and from thence the conclusion is arrived at, that the evils consequent upon its use more than counterbalance the good to be attained by its further toleration as a remedy, wherefore it is "struck" from the Supply-Table of the medical department of the army. That neither of the parties advocating the enforcement of the order excluding calomel from the army hospitals should have uttered a doubt as to the nature or the cause of the gangrene alluded to, is a painfully significant fact, showing either ignorance of the medical history of the country or a disposition to stifle its teaching.

If the facts assumed by the Surgeon-General to be true are not to be called in question, they only prove what all right-minded people admit, the predominance of evil in this world everywhere. All intelligent members of the medical profession know that the mischiefs done in the name of medicine outweigh the good it has accomplished. And what we admit to be true of medicine, we believe to be also true of law and divinity; but no sane person would on that account for one moment think that doctors, lawyers, and clergymen, should be expelled from civil society, any more than intelligent practical physicians would advocate the expunction of the name of a medicinal agent of recognized utility from the supply-table of a hospital, because it had been converted, in the hands of ignorance, into an instrument of destruction.

A very important question, pertinent to this discussion, seems not to have been asked, but if so, has not been answered; and that is,—Have the cases of gangrene, reported to the Medical Bureau, been caused by the use of mercury, or the insalubrity of the season, or of the particular locality where they have occurred!

More than thirty years ago, whilst on duty at a military outpost, I had opportunities of seeing cases of humid gangrene, such as have been described under the names of gangrenous erosion of the cheeks, gangrenopsis, and by that acutest of observers, the late Dr. Parrish, of Philadelphia, as a "disease resembling the effects of mercury." This disease was recognized as the product of malaria, and was especially familiar to the physicians residing at Natchez, on the Mississippi. Cases of this kind occurred in 1836 and 1839 as far north as Detroit; since when, owing to a notable change in the diathesis of epidemic disease, none have been seen, of which I have any knowledge, north of the Ohio River. So far from having been caused by the misuse of calomel, it was most successfully treated by heroic doses of this ostracised article.



I think it now quite reasonable to suppose that the approach of a similar morbid cycle co-operating with the exposures of a hazardous service, may have brought back the long lost cases of gangrenous erosion of the cheek. One reason for such a belief is derived from the condition of the sick found in the hospitals at Evansville, Ind., Paducah, Ken., Mound City and Cairo, Ill., and Memphis, Tennessee, where I saw in February last, instead of the destructive marks of excessive mercurialization, what I considered evidences of too cautious a use of mercurials in the early stages of the diarrhœas associated with or dependent upon hepatic torpor.

Yours, etc., Z. P.

Detroit, July, 1863.

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### THE TREATMENT OF EPILEPSY BY BELLADONNA.

By Dr. J. S. RAMSKILL, Assistant-Physician to the London Hospital, and Physician to the Hospital for Epilepsy and Paralysis.

Concerning the treatment by, and action of, belladonna in epilepsy, I will give you, in a short compass, the results of my experience in its use. First, you must not always, nor even usually, look for immediate and palpable beneficial results. The number of fits at first may not lessen in equal times; very frequently, the reverse obtains; and you may expect, for three or four weeks after commencing it, even in the most appropriate cases, a complaint that the patient gets worse; but after six or eight weeks, if any amelioration occur, it will be decided and progressive. At first the dose should be very small, and gradually augmented until the pupil shows signs of its action, and the patient complains of both alteration in sight and dryness of throat. Having obtained this result, and maintained it for some weeks, the dose may be gradually diminished; but its effects on the eye and throat are not to be so diminished as to become imperceptible to the patient, but only so far lessened as to cease causing absolute discomfort. The other toxic effects of belladonna are wholly uncalled for. Patients vary greatly, both as to susceptibility in the action of the drug, and in other respects. The annoyance as to dry throat and disturbed vision, which, at the expiration of a month, may be said to be unendurable, will now and then cease, the dose being the same, or even slightly increased; but I may remark, these cases always improve most rapidly. I prefer to give the drug in an eighth of a grain dose three times, or only twice, daily, for a week; then



a quarter of a grain for fourteen days; a third for the next fourteen days, at which time its physiological action will in most cases be manifest. I think it wise to halt at this dose for two months or three months, slightly increasing the dose if the patient shows diminished susceptibility to its influence, decreasing it if the reverse happens, and then gradually dropping it to the quantity first administered. I have given as much as four grains for a dose, but very rarely. I think it imperative to say, that I have never been able to give in epilepsy the large doses which Dr. Fuller has succeeded in administering in other diseases of a convulsive character. In this remark I am supported by the authority of my colleague, Dr. Brown-Séquard, who has arrived at the same conclusion. One objection to the use of belladonna, when you cannot see your patient at regular intervals, arises from its uncertainty of strength and corresponding difference of action. To those who wish to use a preparation of uniform strength, having similar, and, in some cases, improved properties of belladonna, the salts of atropia are now easily procurable. The best of these is the valerianate of atropia; the commencing dose a-hundred-and-twentieth of a grain. Hitherto, I have preferred belladonna, having had a strong desire to find what it could and, if possible, what it could not accomplish in the treatment of epilepsy. It is right to say, there are different methods of administering belladonna. Trousseau gives a centigramme of the extract and an equal quantity of the powder of belladonna for the first month, in the evening of each day. He gives it at this time because of the frequent nocturnal character of epilepsy, and partly because of the disagreeable effect on the sight and throat during its early administration. During the second month, he gives two such pills at the same time, and during the third month, three pills. If, at the end of six or nine months, the frequency of the fits is decreased, he increases the dose. He asserts that, of 120 patients, he has cured twenty. A most important question now arises,—Do we know anything of the nature of the action of belladonna beyond the empirical results obtained in treatment? If a drop of solution of belladonna or atropine be dropped on the foot of a frog properly prepared, and fixed on the field of a microscope, the bloodvessels will be seen to contract, and they will remain in this condition for a considerable time. For comparing the action of opium, a solution of the latter, similarly prepared, was applied to another part, and the vessels were immediately dilated. Now, belladonna, internally administered in medicinal doses, causes, first, dilatation of the pupil, with dimness of

vision; secondly, dryness of throat and difficulty of swallowing; thirdly, increased tone of involuntary muscle; fourthly, it relaxes the bowels, and cures incontinence of urine, arising from weak sphincter vesicæ. As dilatation of pupil is one of the earliest phenomena, let us see if we can account for it. There are two sets of fibres in the iris. It is well known that the sympathetic is the motor nerve of the external longitudinal fibres of the iris, which radiate from the centre to the circumference. The branch of nerves supplying these fibres comes from the cervical ganglia of the sympathetic. Excitation of this nerve, from any cause, will cause a contraction of these longitudinal fibres, and a corresponding dilatation of pupil. There is also a circular set of fibres immediately surrounding the margin of the pupil. This set is under cerebral control; that is to say, its motor supply comes from a branch of the third nerve. Any irritation in the brain or along the trunk of the nerve, or an excitation by light on the retina acting in a reflex manner, will stimulate this branch of the third to action, and cause contraction of pupil.

But we may have dilatation of pupil without increased action of the sympathetic; it may be acting normally, then the third nerve must be supposed deficient in power. This is a common result observed in compression of brain. On the other hand, contraction of pupil may be present without abnormal activity of the third being necessarily supposed. This condition is invariably produced by section of the sympathetic in the neck. Dilatation of pupil may, in short, depend upon the action of the sympathetic being in excess, or in diminished power of the cerebral nerve. In epilepsy it is easy to observe, from collateral symptoms and the general condition of the patient, that dilated pupil, when it exists, which is much rarer than a normal condition, is usually caused by an active sympathetic overpowering the third nerve. The same dilatation may be observed in most convalescents after acute disease, and in most affections involving extreme debility; but here it would be more correct to say, that the dilatation was rather the effect of a compressed condition of the third cerebral nerve accompanying a normal sympathetic, than of an active sympathetic accompanying a normal condition of the cerebral nerve. I have said the branches of the sympathetic nerve which go to the iris, come from the cervical sympathetic. Dr. A. Walker, with Professor Budge, have made experiments, which seem to prove that the nerve fibres of the cervical sympathetic, which go to the iris, originate from the spinal cord between the sixth cervical and the fourth dorsal

vertebrae. Dr. Brown-Séquard has ascertained that the origins of the fibres of the sympathetic going to the iris are still more extended. I have mentioned that division of the cervical sympathetic allows the uncontrolled third cerebral nerve to contract the iris. Dr. Brown-Séquard has shown that a section of the spinal cord, as high as the level of the fifth cervical, or as low as the ninth or tenth dorsal vertebrae, affects the iris in the same manner, but in a less degree than section of the sympathetic. On the other hand, Schiff has shown that some of the fibres animating the iris ascend the cervical part of the spinal cord, and most probably go up to the medulla. I may also say here, that the sympathetic is the motor nerve of the bloodvessels, supplying various parts of the head. It is especially interesting to know the origin of these vaso-motor nerves, especially in relation to loss of consciousness, the initial movement of a fit of epilepsy, and also in regard to the pathology of the *petit-mal*, as well as the great light such knowledge would throw on the action of belladonna in epilepsy. Dr. Brown-Séquard discovered some years ago that the motor nerves of the bloodvessels going to various parts of the head, come out chiefly from the spinal cord by the roots of the last cervical and first and second dorsal nerves. He thinks, however, their real place of origin to be partly the spinal cord, partly the higher portions of the encephalon, but chiefly the medulla oblongata and the neighboring parts of the encephalon. In the case of R. P., it will be remembered the *ferrum candens* was applied to each side of the spine, opposite the last cervical and first dorsal vertebrae. The reason will now be apparent. The vaso-motor nerve fibres are able to contract the bloodvessels directly, when excited. We hope, by frequently cauterizing the tissues opposite the seat of exit of these nerves from the spine, to effect some change in the nutrition of the parts to which these nerves are distributed. We can now understand the nature of the action of belladonna in producing dilation of the pupil; and from its effect on the iris, we can deduce a strong probability of the nature of its action in epilepsy. It is a stimulant to the sympathetic, the motor-nerve of the bloodvessels, and it is only on this supposition we can account for the other physiological effects of the drug.

I would add, although experience shows belladonna is one of the most powerful contractors of the bloodvessels of the spinal cord and its membranes, it has a comparatively feeble action on those of the brain. I speak of its administration in medicine, —not in poisonous or fatal doses. Hence arises its extraordi-

nary adaptability in epilepsy, where we have dilatations of vessels or turgescence in the medulla and its neighborhood; of its still more marked efficacy in inflammation, and congestion of the spinal cord and its membranes; as well as of its comparative inutility (administered alone,) in those cases of morbid activity of brain, connected, as we think, with more or less congestion of grey matter, in some forms of incipient insanity, associated with sleeplessness and suicidal tendency, as well as in some other cerebral diseases.—*Medical Times and Gazette.*

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### ON SCARLET FEVER COMPLICATED WITH RHEUMATIC AND CARDIAC AFFECTIONS.

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[It seems now pretty well decided that cases of scarlet fever occur, complicated with rheumatic affections of the joints, and even with well marked pericardiac and endocardiac inflammation. Dr. Richardson, in his Clinical Essays, article "Scarlet Fever," p. 85, says:]

That he once attended four children in one family for scarlet fever, and that in two of the cases well-marked symptoms of rheumatic fever set in on the second day of the eruption. In one, the endocardial membrane became affected. He writes:—"I could not make out satisfactorily any proof of hereditary taint, as accounting for the rheumatic complication; but there it was, and there was the fact, in spite of any hypothesis to the contrary, that two diseases may exist in the same body at the same time."

[The connexion of affections of the pericardium and endocardium with scarlet fever has been long recognized, but does not seem to be considered as a frequent cause of disease of the heart. It is not mentioned by such standard authors as Walshe and Markham. Dr. West, in his work on "Diseases of Children," writes:]

"In two cases of pericarditis, in three of acute and one of chronic endocarditis, or in six out of thirty-nine instances, the disease of the heart was traced to an attack of scarlet fever. The cardiac symptoms did not manifest themselves in the acute stage of the affection, but during the progress of desquamation."

In reference to the connexion of the heart affection in scarlet fever, when complicated with rheumatism, the following quotation from Dr. Watson will be interesting:—"I have several times, when the rash of scarlet fever was disappearing, known pain and swelling of the larger joints to supervene, simulating

closely the local phenomena of sub-acute rheumatism; and I have noticed that the painful joints were eased and benefited by friction,—a circumstance which may help to distinguish this articular affection from true rheumatism. Another distinctive circumstance seemed to be that, although all these patients were children, the heart in no instance became implicated in connexion with the tumid joints. Upon this point, however, my own experience may have been fallacious. Dr. Scott Alison has recently invited attention to the subject, in an interesting essay on 'Pericarditis a Complication and Sequela of Scarlatina.' Accepting his facts, I should ascribe the articular affection and the cardiac affection, whether they occurred together or separately, to one and the same cause, viz.: to the retention in the blood of a poisonous excrement, by the default of the principal emunctories, and especially the kidney."

[In one case which occurred to Dr. Budd, at King's College Hospital, the report of the autopsy relates that there was "some recent lymph on the surface of the heart, and a few ounces of serous fluid in the pericardium." In this case no abnormal sound was heard before death, though the action of the heart was irregular and feeble. We do not consider this a common complication of scarlet fever, yet that it does occur we ourselves can testify.]—*Medical Times and Gazette.*

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### Editorial.

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**MEDICAL COLLEGES IN CHICAGO.**—The two regular medical colleges in this city have issued their respective announcements for the coming annual courses of instruction.

That of the Rush Medical College, indicates no important alterations from the preceding year, either in the course of instruction or in the members of the Faculty. The term will commence on the 7th of October, and continue, as usual, *sixteen weeks*. For clinical instruction, the Faculty seems to rely almost wholly on the college dispensary, or rather on a simple college clinic twice a week. The announcement alludes to an arrangement for admitting the students into the Marine Hospital, but it does not state how often, or by whom they are to be instructed

when there. A few weeks since, we saw the Annual Catalogue and Announcement of the University of St. Mary's-of-the-Lake, a well-known catholic college in this city, in which the Faculty of Rush Medical College are represented as the *Medical Department* of that University. The same claim to a Medical Department is contained in the advertisement of that University, in the daily papers of this city. In the Annual Announcement of the Rush Medical College, now before us, there is no allusion to the subject. Has the Rush Medical College and the Catholic University really become united, or is the statement in the circular of the last-named institution a mere advertising dodge on the part of the Rush College? The same circular of the University of St. Mary's, stated that candidates for the degree of M.D., in that institution, must have studied medicine, *at least, one year!* Yes, *one* whole year of study to make a "Doctor of Medicine!" The year is, doubtless, intended to include *sixteen weeks* of lectures in the, so called, Medical Department. Verily, this affords a *short*, if not a royal road to medical honors, or, more properly, *titles*. A full explanation of the condition and prospects of the Chicago Medical College, (the Medical Department of Lind University,) we give in the July number of this Journal, and hence will not repeat it here. The new college building, there described, is rapidly approaching completion. The Mercy Hospital has become fully installed in its new and pleasant quarters, and its wards are more full than they have been at any previous time during the last two years. They will afford an ample field for true clinical instruction, in reference to all the more important diseases met with in medical and surgical practice. The students of the Chicago Medical College, in addition to the usual college clinics twice a week, will receive regular clinical instruction in the wards of the Hospital, four mornings in the week, throughout the whole college term. From the Announcement of the Rush Medical College, we learn that the General Introductory Lecture, at the opening of their next Annual Course, will be delivered by E. INGALLS, M.D., Professor of Materia Medica and Medical Jurisprudence, on the evening of the 7th of October.



The General Introductory Lecture, at the opening of the next term in the Chicago Medical College, will be delivered by N. S. DAVIS, M.D., Professor of Practical Medicine, &c., on the evening of October 12th.

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ARMY SURGEONS.—We are informed that all vacancies in the Medical Department of the Army, so far as relates to the Illinois Volunteers, have been filled; and, consequently, that there is no necessity for further applications for examination and appointments at present.

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#### TO THE MEDICAL PROFESSION OF ILLINOIS.

The undersigned was, at the last meeting of the Illinois State Medical Society, appointed as Chairman of the Committee on Drugs and Medicines.

All members of the Medical Profession in the State of Illinois, are hereby requested to report the result of their observations in regard to any new remedies, or new application of those long known, to the Chairman, at Quincy, Dr. R. G. Laughlin, of Hayworth, or Dr. F. R. Payne, of Marshall.

Respectfully, F. K. BAILEY.

*Chairman Committee on Drugs and Medicines.*

Quincy General Hospital, August, 1863.

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ILLINOIS STATE MEDICAL SOCIETY.—The Special Committee on *Diseases of the Eye*, appointed at the last meeting of this Society, earnestly requests all members of the Association, and of the profession generally, to aid in accomplishing the objects for which the Committee was appointed.

Although the Committee has previously reported upon the causes of conjunctival inflammations as they prevail at the West, it is desirable to collect more facts in reference to the causes and prevention of this disease.

The Committee would suggest, that all members, who have observed epidemics of conjunctivitis, contribute such facts as may demonstrate to what extent the disease is influenced by dryness of the atmosphere, season of the year, dust from trees



and plants, want of care as regards food and exposure, malaria, etc.

The history of interesting cases of any form of ophthalmic disease is urgently solicited.

It is important that all communications be forwarded to the address of the subscriber, previous to April 1, 1864.

E. L. HOLMES,  
Box 2175. *Committee on Diseases of the Eye.*

**ARTIFICIAL PETRIFICATION OF ANIMAL TISSUE.**—In one of his interesting European letters to the *American Medical Times*, descriptive of the principal hospital and other medical institutions of Florence, Prof. Charles A. Lee thus notices a very important discovery, a knowledge of which appears to have been lost through the cold indifference to new ideas and narrow prejudice against progress which so generally prevails, to the great disadvantage of science and the injury of those noble pioneers of truth who promote its advancement.

"In the museum of this school, also, are the celebrated preparations of Legato, who died about 30 years ago. This celebrated anatomist discovered a mode of changing all animal tissues into stone, without changing their form or color in the slightest degree, and even preserving the natural flexibility of the ligaments, tendons, and joints, etc. Here is a tablet, perhaps a foot and a-half square, inlaid with splendid mosaics in ornamental figures, consisting entirely of the various textures of the body converted into stone, hard and smooth as polished marble. For example, a portion of liver, lung, spleen, skin, kidney, penis, uterus, cartilage, muscle, brain, nerve, spinal cord, membrane, eye, bone, etc., etc., all retaining their natural color, and readily recognized by the anatomist. This celebrated genius did not meet with that encouragement which he expected and deserved for his most important discovery, the Government entirely ignoring his valuable services, and the secret accordingly perished with him. Among the animals converted into stone I noticed the rat, cat, spider, fishes, etc, all looking perfectly natural."—*Druggists' Circular.*

**GARIBALDI PROBE.**—Dr. E. L. Duer, of the Sixteenth U. S. General Hospital at Philadelphia, proposes a very simple substitute for the porcelain-headed probe of M. Nelaton, known by surgeons as the *Garibaldi probe*. He suggests a white or opalescent glass rod, having successfully made use of this for

several months. He says, in a note to the *Philadelphia Reporter*, "A rod of the requisite thickness and color may be simply and readily prepared by first rounding the end a little, by holding it in the flame of a spirit-lamp, and then rasping it off with emory paper."—*Cincinnati Lancet and Observer*.

**MICHIGAN STATE UNIVERSITY.**—At the recent annual meeting of the trustees of this institution, Dr. Tappan was removed from the Presidency and the Professorship of Sacred Rhetoric, and Dr. E. O. Haven elected to fill the vacancy. The election was made *viva voce* and unanimous. It is understood that hereby is removed the noxious influence which has year after year persisted in the effort to foist a chair of Homœopathy on the medical department of this University.—*Cincinnati Lancet and Observer*.

**LARGE SCROTAL TUMOR.**—Dr. Cleveland, of Malabar, has reported the removal of a large scrotal tumor, from a native of the Laccadive Islands, the weight being 78 pounds. The man was a strumose subject, and died on the ninth day after the operation, from an attack of diarrhœa.

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